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ABSTRACT

Three case studies describe and analyze the events occurring in three classrooms in the St. Louis metropolitan area during the first year (1979-1980) of the use of ThinkAbout, a series of 60 15-minute programs designed to strengthen the reasoning skills of fifth and sixth graders, and to review and reinforce language arts, mathematics, and study skills. Each study focuses on how the teacher used the series in the context of district policies, particular school and classroom settings, and personal teaching style, and how students responded during the ThinkAbout lesson and afterward. It was concluded that (1) a teacher's approach may be described in terms of the number and sequence of programs viewed; amount of teacher preparation; number, nature, and quality of introductory and follow-up activities; degree of connection and integration with the students' life in class and out; and the degree to which the overall classroom environment supports the television series' curriculum goals; (2) there is an enormous diversity in the ways teachers use television; and (3) these diverse uses of television may be determined by societal, community, and school curricular demands; personal interest in job satisfaction; insight into the nature of the teaching task required by the television curriculum; and teaching skills. Four references are listed. (Author/LMM)

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Volume II

ThinkAbout:

Teacher Use and Student Response in Three Classrooms

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Graduate Institute of Education
Washington University

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agency for instructional television

RESEARCH ON THE INTRODUCTION, USE, AND IMPACT OF THE THINKABOUT INSTRUCTIONAL TELEVISION SERIES

Principal Investigators:

James R. Sanders and Subhash R. Sonnad

Evaluation Center

Western Michigan University

Volume II

THINKABOUT: TEACHER USE AND STUDENT RESPONSE IN THREE CLASSROOMS

Marilyn R. Cohn

Graduate Institute of Education

Washington University

January 1982

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FOREWORD

Dr. Marilyn Cohn is Assistant Professor of Education at Washington University in St. Louis and a researcher with the Graduate Institute of Education at the institution. Dr. Cohn conducted three case studies in the St. Louis metropolitan area between October 1979 and May 1980. The settings of the cases were different and included both an affluent white district and a mixed-social-class, integrated district. Her data collection methods included participant observation and interviews. After nine months of classroom participation and observation and two months of reflection, Dr. Cohn arrived at three conclusions regarding teacher use of television. The first was that a teacher's approach may be described in terms of the following dimensions: number and sequence of programs viewed; amount of teacher preparation; number, nature, and quality of introductory and follow-up activities; degree of connection and integration with the students' life in class and out; and the degree to which the overall classroom environment supports the television series' curriculum goals.

Her second conclusion was that there is an enormous diversity in the way teachers use television.

Her third conclusion was that teacher use of television may be determined by some combination of the following factors: societal, community, and school curricular demands; personal interest in job satisfaction; insight into the nature of the teaching task required by the television curriculum; and teaching skills.

J. R. S. and S. R. S.
January 1982

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INTRODUCTION

What should be the essential function of schooling? This is an introductory question that I invariably pose to teachers in my graduate courses. They consistently respond with some variation of the theme "teaching children how to think." They are, however, usually quick to add that their personal efforts in this direction have been quite frustrating. Some express the problem this way:

> "The kids today are lazy—they don't want to think. Television has made them passive. They want me to do all the work."

Others talk in these terms:

> "Most of my kids can't think. They're alright as long as they can memorize things, but if you ask them to apply what they have learned, they just can't do it."

Still others hold this position:

> "I don't have time to grade essay questions or plan activities which make them think. There are so many things I am expected to cover."

The new video series ThinkAbout, produced by the Agency for Instructional Television, promises assistance in this domain for upper elementary teachers. According to the series guide, "ThinkAbout is a series of sixty fifteen minute programs that help fifth and sixth graders acquire and use the skills they must have to be independent learners and problem solvers." More specifically, it aids in their

learning to "(1) effectively express themselves, (2) manage their own learning, (3) reason systematically, and (4) think flexibly."

The following case studies are efforts to describe and analyze what occurred in three classrooms where ThinkAbout was used in its first year. In each case, the focus was on (1) how the teacher used the series in the context of district policies, particular school and classroom settings, and personal teaching style and (2) how students responded, during the ThinkAbout lesson and afterward. There was no effort to describe, analyze, or evaluate the ThinkAbout series itself.

In the process of identifying three viable research settings, a total of eight classrooms were visited. Two were eliminated because there were no introductory or follow-up activities. In one instance, a team of two teachers in an "open" classroom showed two ThinkAbout videocassettes back-to-back to approximately 55 children every Friday at 2:30 p.m. In the other, a class viewed ThinkAbout as it was aired twice a week and then either watched the program that followed (Truly American) or went to recess. The other three settings were eliminated because, for differing reasons, the teachers stopped watching the series. One could not continue to see it at the scheduled times and refused to "worry about cassettes being delivered from the media lab." Another found herself "way behind in math and reading." And the third was sidetracked by a rash of springtime activities--an all-school track meet, assemblies, and three rounds of testing.

In each of the three classrooms ultimately selected, ThinkAbout was viewed regularly, and there was consistently some type of introductory and follow-up activity. In addition, the students were accustomed to watching instructional television, and the teacher was

willing to have an observer for an extended period of time. Of the four criteria, the last was, of course, critical, and the three teachers involved in this study were more than willing--they were open and completely cooperative. For their extraordinary assistance and for the support of their building and district administrators, I am extremely grateful.

M. R. C.
January 1982

INTRODUCTION TO CASE 1

Among the many teachers who introduced ThinkAbout into their classrooms during the 1979-80 school year was one Mary Church, a fifth grade teacher at Roberts Elementary School in the midwestern suburb of Forest Hills. Ms. Church first learned of ThinkAbout during an August State Department workshop, and then she attended two more workshops--one run by the State Department for all county districts and one run by her principal for the Roberts School fifth grade staff.

An avid user of instructional television, Ms. Church enthusiastically adopted ThinkAbout and viewed it regularly with her students throughout the year. I entered her classroom as a participant-observer in October and stayed until mid-December (follow-up visits were made afterward but they were sporadic and brief). In the beginning (early October) I observed primarily on the days the class viewed ThinkAbout (T-Th 1:00-1:15 p.m.), and for approximately half a day (11:15 a.m.-2:45 p.m.). From mid-October to early December, I spent approximately three whole days a week in this classroom (9:00 a.m.-3:30 p.m.) and added some limited participation to my observation. My participation included reading to the children at story time (11:45 a.m.-12:15 p.m.), working with individual students, assisting Ms. Church by taking students to and from activities (P.E., art, music) and contributing to holiday celebrations (i.e., supplying pumpkin and candy apples for Halloween and Indian corn and gourds for Thanksgiving). Formal interviews were conducted with each of the children, Ms. Church, and the principal, reading specialist, instructional specialist, and other

fifth grade teachers at Roberts School. In addition, I attended PTA and other school-related meetings, listened in on parent-teacher conferences, visited other Forest Hills schools and classrooms where ThinkAbout was being used, and talked to administrators in other buildings and the central office.

Throughout the study, the research question remained the same—what happened in Ms. Church's classroom when ThinkAbout was used? From time to time, however, the focus shifted among a number of different factors—namely, the community and school district of Forest Hills, the Roberts Elementary School, the classroom of Ms. Church, and ThinkAbout in Ms. Church's classroom, its use and its instructional impact.

THE COMMUNITY AND SCHOOL DISTRICT OF FOREST HILLS

Forest Hills is a large and thriving suburb of a large and not-so-thriving midwestern city. Twenty-five years ago, one-room schoolhouses served a predominantly rural clientele, but today some of the nation's largest, most modern, and luxurious school buildings serve "a very fast urban middle class." A strong industrial base exists (factories, assembly plants, large shopping centers, small businesses), and while, of late, local taxpayers have had to bear more of the burden, they are, in the opinion of one school official, "still better off than those in the average district." Some complain that the district is too large—68 square miles—but with the industry confined mostly to the west side, division that would permit equalization of the tax dollar appears unlikely, if not impossible. Although Forest Hills seems to have reached its peak in terms of growth, some point out that if a huge underdeveloped tract in the extreme western area "ever really takes off" there could be yet one more significant industrial spurt.

Residents inevitably describe Forest Hills as "middle class"; they are, however, just as quick to add that there is considerable diversity within the label. In much of the eastern end, for example, professional people, well-paid corporate executives, and successful small businessmen reside in spacious one- and two-story homes in carefully planned and well-manicured subdivisions. These are clearly upper middle class. In the central portion live the bulk of the residents and those who are most representative of the middle class—the blue-collar workers. And in the far western end and in certain sections of the central portion, there is a transient group housed

in rental properties who are clearly lower middle class or perhaps below. Within these general geographical demarcations and stereotypic labels there is, of course, considerable variation as well.

Racial difficulties thus far have been minimal. A relatively small black population is scattered throughout much of the community so that in most schools the black children number somewhere from 8% to 10%. Inevitably, however, comments about racial composition include mention of one black pocket in the central portion, which has in turn given rise to one segregated school. While some dismiss this area as a small exception, others are predicting future difficulties. In one teacher's view:

> The racial issue is going to be a real problem. I think it's coming faster than we realize and I think the only thing that may solve it is a court order. People will be upset about bussing, but in our school now, there are only five children who are no longer bussed because of dangerous roads. So to say you cannot bus would be ridiculous. I can see the other side of it too. You buy a house because you want your child to go to a particular school or be in a particular district. I also think there are going to be problems when the county is forced into joining the city in their desegregation efforts. I can see this will be a real problem.

Forest Hills is clearly a Christian community. The Catholic church is dominant, but there are strong Protestant groups as well. The Christian influence is felt most strongly in the schools at Christmastime, where religious symbols and activities abound. (At one school all of the teachers dress in red and green to celebrate the advent of the Christmas vacation.)

Three important nationwide school trends--declining enrollments, teacher militancy, and back-to-basics--have left their mark in differing degrees on the Forest Hills School District. The least potent, thus

far, has been that of declining enrollments. Until very recently, a steady stream of home building in the most affluent area of the eastern edge has offset declining enrollments in other sections. Crowding in some of the affected eastern area schools has been satisfactorily alleviated by bussing some of the sixth graders to schools in the nearby declining areas. This resolution, though a temporary one, is still a resolution.

Teacher militancy, on the other hand, has generated a number of unresolved and debilitating tensions which are strongly felt in the district. Accusations and hostilities that surfaced in a long and divisive teacher strike a year ago remain alive, and some teachers still speak of being "at war" with the administration. Teacher militancy is primarily expressed through a strong Forest Hills Educational Association. According to one administrator, the group's strength stems from an all-out effort by the state organization to make its mark on the county's largest district: "They poured money into it, consultants into it--they beat the brush pretty good." Another obviously frustrated administrator spoke this way of some of the negative outcomes of these inroads:

> If you talk to NEA, an administrator is an administrator. There is no good administrator--I can't use that criteria when I deal with teachers. I can't say "No, it's because you're a teacher"--but that basically is what I get all the time. I say, "I don't do that; as an administrator I'm going to protect you. Even when you are wrong I'm going to try to salvage the situation." They say, "Great, but you're an administrator. I don't trust you." And I don't know how you ever overcome these things. With the militancy has gone along a feeling that we don't make enough money to be coming to night meetings or we don't make enough money to do these kinds of things. On the one hand, they want the community support, but they don't want to do anything that's not a punch-the-clock situation, they

> want everything spelled out like unions. "And when this comes, I'm done. I don't want any responsibility". . . . They're creating huge gulfs between the community and the teachers.

A loyal and active member of the local group expressed some of its positive outcomes in this way:

> When it actually comes down to it, an individual teacher has very little impact [on school practices, policies, and curriculum], and they can have very little impact unless they band together, stick together. There's very little one person can do. It can also help ensure good representation in all areas. They say we have input in curriculum and other areas, but it's your principal who recommends the people for these jobs. Some who are very qualified in certain areas may be passed over because of a personality conflict.

These opposing and oftentimes emotional perspectives create in Forest Hills an ongoing district-wide undercurrent of mistrust and misunderstanding that bubbles up to the surface from time to time in different schools over specific episodes in which individual teachers or administrators feel their rights have somehow been abridged.

Of the three national trends, however, the back-to-basics movement has unquestionably had the most pervasive and far-reaching effects. The district has recently adopted a fundamental skills program which has permeated every facet of school life, particularly at the elementary level. School personnel disagree as to its source. One administrator talked about general parent attitudes:

> I think something happened nationally--social promoting, grade systems where we went from satisfactory to unsatisfactory with no standard, parents not really knowing where their kids were on a continuum or where they were compared to grade level, and those kinds of things.

One teacher spoke in more specific and localist terms:

> I think it came as a result of the new state eighth grade competency tests and the junior high teachers

> complaining that children were coming to them that had not yet met basic requirements.

Whatever the source, there is unanimity that a major back-to-basics shift came suddenly and unexpectedly in the form of a mandated retention-promotion policy. One elementary principal expressed both the abruptness of its appearance and the difficulties in follow-through in this way:

> We came back to school in August and we found that we had a retention-promotion policy thrown at us. The board wrote it, unbeknownst to us all, and the elementary ended up writing the administrative guidelines. The policy has some exceptions in it, and we had to clarify administratively what those exceptions were. Of course we got into disability kids and low-IQ kids. It was a little difficult because it was basically the cart-before-the-horse kind of act. Our first year was really tough trying to implement because when we got ready for report cards, we found out our report card couldn't implement that policy. And then we always believe in having teachers on the committee, and that slowed us down, so the whole year we found ourselves behind, trying to implement.

One teacher experienced the sudden shift and consequences this way:

> All I know is that when it happened I had to make a complete change. I had been recording grades in a certain way, but about halfway through the first period we found out we had to give different kinds of grades--based on percentages--and that we were going to have to start retaining children who did not pass a fundamental skills test.

Since the new retention-promotion policy dictated the need for a clearly delineated set of "fundamental skills" and a corresponding set of tests, committees of administrators, teachers, and subject area consultants produced both. There is currently a fundamental skills booklet that lists the skills to be mastered at each grade level in four areas--1) communication (reading, writing, composition, spelling, speaking), 2) mathematics, 3) science, and 4) social studies

--and there are measurement items for each skill. The progress of a student who is not achieving at his level in one or more areas is monitored through the use of the Skills continuum in the FSP booklet. Administrators now point with pride to the fundamental skills program, and although teachers speak of problems and pressures in implementation, they too seem generally supportive of the idea behind it. In fact, according to one school person, "everyone wants to take credit for it."

While the fundamental skills program and other broad expectations and policies of the central office lend a certain element of uniformity to the district's 20 elementary, three junior, and three senior high schools, each manages by virtue of its particular clientele, architecture (open or closed space) and administrator to create its own distinctive approach and ambience. Each principal clearly functions as the captain of his ship and often competes for honors (from test scores to PTA funds) within the fleet.

ROBERTS ELEMENTARY SCHOOL

An Overview

Roberts School is situated in the eastern, and therefore most affluent, section of Forest Hills. Although only minutes away from a major thoroughfare, replete with gas stations, car dealers, fast-food restaurants, and shopping centers, it sits far enough from the street and close enough to some of the attractive homes it serves to project more of a residential than an institutional image. The building is a relatively modern (late-'60's), low, unobtrusive yellow brick and glass structure, and as the visitor enters through large double glass doors, he is struck by the orderliness, cheerfulness, and efficiency of an airy central hall of offices. Straight ahead is a spacious main office with a high counter that serves to separate and protect the administrative work from the teachers, children, and parents. Behind the counter are the secretary's desk and the principal's adjoining, tastefully decorated private quarters. The area in front of the counter—with its staff mailboxes, bulletin boards full of announcements, and table for films to be returned—is clearly teacher territory. Two large, healthy-looking hanging plants and a large wall tapestry give the business space a warm, pleasant touch.

On either side of the main office are smaller support staff offices. To the left is the clerk and her duplicating equipment. To the right are the separate offices of the instructional specialist, the reading specialist, and the counselor. The many textbooks, teachers' guides, catalogues, games, and other curricular materials that line their bookshelves and cases suggest that there is far more here than any one person could be familiar with or remember.

Tucked into alcoves among these offices are the clinic and the teachers' lounge and rest room. The lounge, which by conventional standards is large and luxurious, has recently received a face-lift through the generosity of the PTA. Among the new purchases are a large, oversized and overstuffed, wine Mediterranean-style couch and three matching chairs, which form a living-room grouping around a low round "cocktail" table. Along two walls of the lounge are built-in bookshelves and desks with two typewriters and a paper cutter. In one corner is a soda machine, in another a self-service snack shelf, and in the middle of the room there is a long obtrusive lunch table. (Until very recently, the teachers ate in the cafeteria with the children, but their continued complaints on the noise level finally persuaded the principal to make the lounge a lunchroom facility as well.) Numerous Forest Hills Educational Association posters and flyers adorn the lounge walls, suggesting that the local group is hard at work in the building. Although the lounge is well equipped for both work and relaxation, the latter clearly prevails. During their 30-minute breaks, the teachers tend to head straight to the lounge, help themselves to soda and a piece of candy from the jar on the low table, "plop" into the soft furniture, and chat with whoever else is there. The conversation is light and often centers on the current activities of the "social committee." Each year different members of the staff are responsible for "keeping spirits up" at Roberts, and this year's committee planned an evening at the race track and a Christmas dinner dance, decorated the lounge with seasonal cutouts (autumn leaves, turkeys, and candy canes) and created a number of diversionary lounge activities. There are, for example,

signs that exhort teachers to guess the number of jelly beans in the jar (the prize is the jar and the jelly beans), to identify pictures of colleagues taken 25 years ago, and to "remember" to do something special for your "secret pal." At holiday time, teachers sell posters and raffle tickets for their favorite church or sorority and swap recipes and shopping hints. If talk does turn to school-related matters, it is generally in the form of a negative reaction to some policy statement or a question about children or parents (i.e., "Did you hear the Robinsons are moving out of town?"). Rarely do teachers talk about what or how they teach or of what or how children learn.

Moving away from the central hall area to the left wing of the first floor, one finds two large spaces primarily for children--the gymnasium and a multipurpose room which serves as an auditorium and a cafeteria. The aroma of freshly baked cookies, cakes, or brownies emanates from this area each morning, as Roberts still maintains a full staff of cooks who prepare meals and dessert treats daily. Moving to the right wing, one finds the library, music room, art room, as well as the classrooms of the younger children. Stairways at either end of the right wing hall lead upstairs to the bulk of the classrooms and to the special education resource room. Walking through the halls upstairs or down, the visitors' eyes are drawn alternately to the warm, sunny yellow walls, the colorful and carefully arranged displays of children's art (which is far too uniform and complex to have been done without much direction and supervision), the many television sets perched on portable stands, and the gleam of the clean, waxed, and polished linoleum floors.

Quick glances through classroom doors reveal an exclusively

female classroom teaching staff (there is one male gym teacher) ranging from their late 20's to their early 50's. Neatly but unfashionably dressed in polyester pantsuits or tailored short flared skirts and blouses, these women appear serious, caring, and in complete control of their charges. The "charges" range from kindergarten to fifth grade level, and are mostly white, blond-haired, and wholesome-looking in their "running" shoes and carefully laundered jeans and shirts (from Penney's and Sears as opposed to Saks Fifth Avenue). The few black children in each room look equally well groomed and dressed. All look cooperative.

At almost any point in the school day one or more of these teachers can be seen protectively leading their broods through the halls to art, music, gym, library, or lunch; and in almost every instance, the children are dutifully and silently following behind. Those who occasionally step "out of line" are quickly asked to move to the end, and periodically the whole group is reminded of its age and its responsibilities ("I want you to act like second graders"). The orderliness one feels in the building during the school day prevails before and after as well. Early arriving children are "kept" outside until 8:50 by teachers who take turns at playground duty so that the rest can have time alone to prepare for the day. To preserve order at the close of the day, children are dismissed in groups--first one set of busses, then another, then car pools, and finally those who walk or ride their bicycles. Thus, rich in resources, established routine, and orderly conduct, Roberts School strikes the visitor as a highly organized, pleasant, and predictable work place, both for teachers and for students.

The Principal

The person most responsible for creating the particular tone and work environment of Roberts School is, of course, its principal, Dr. Madison, who "opened" the building in the late '60's. An energetic and personable man in his early 40's, Dr. Madison speaks enthusiastically of almost every facet of his job.

His clientele, for example, he labels as "ideal":

> This school here is the really ideal school because we've got a basically average IQ that's higher than normal in Forest Hills rather than, say, the national average. It keeps everything up. And yet we do have a small minority population that keeps us on our toes. You don't get stagnant with those kinds of kids because their parents are moving in and saying, "I'm sacrificing to come here. I'm trying to cope and I'm trying to help. What can I do?" And that keeps Roberts, I think, on its toes, and yet not overwhelmed, which is important. There is this ceiling as to what our apartment complexes, which are giving us this type of child, can give us in numbers. That is control. And yet really beautiful kids that are not the typical Roberts suburban type of kid. And professionally, it's a very stimulating thing.

He concurs with his community's charge to concentrate on the "basics":

> As an educator, I could more than agree with it. I have found that since I've been a principal, every year things are added but nothing is taken away. I see the lunch program as necessary, but the whole free lunch is a clerical mess. We have people on free lunch that we're not allowed to check if they're driving Lincoln Continentals. They have horses, the whole thing. And it takes time and all that. You can go on to all those kinds of things. They're thinking about serving breakfast, the drug curriculum, the career education curriculum, all those kinds of things coming in. When you add those into the practical arts curriculum, then something has to go because you only have a six-hour day. It puts teachers in the position of saying, "I like this," or "I want to teach this," unless your principal is saying, "This is where I want priority" and doing some kind of checking on it. I'm the kind of

> principal that feels that I need to be making those kinds of decisions, but making them as I read my community and sitting down with my staff saying, "What are your priorities?" and so on. . . .

He has even come to believe that his positive handling of the retention-promotion policy has turned it into a highly profitable experience for those affected:

> As an educational leader here, I tried to view it as a very positive thing instead of moaning-groaning about it. We tried to go about it and make it a positive experience for the kids. And I approached it here like . . . there are some things that in education we have needed. One of those things that I have felt that is lacking in this whole thing is, the burden or the brunt of learning has been put on the teacher. She has been the push, the magic button, the cure-all. And so I said, this is going to be a thing where we are going to put the responsibility, number one, back on the kid, and then we're going to involve the parent as much as the teacher in the learning process, and it's going to be a three-way team here. Well, the teachers would buy that quickly. So you have them behind you. In this community, there's no trouble with parents. So it was the kid that had to grow up quickly or suffer some dire consequences. What could I do? I made a little flip chart with pictures and I went into every room and I tried it out. Even in kindergarten. I told them, "We have this new rule, and what is your responsibility? Is it Mom's responsibility?" And I'd have a picture of Mom up there and all this kind of thing. And the teachers would schedule me in, and we would have a little rap session with them and flip through it and so on. So we felt that we really got the kids behind us. The policy in itself has really done that one thing—it has put the monkey on the kids' back for responsibility. Not all of them have accepted it and they pay the price, but very few kids have we retained that it hasn't been profitable.

Dr. Madison maintains that his chief job is "to keep achievement up," but quickly adds that the "environment" that makes it possible is quite difficult to create. In such an environment, he believes that first of all, "kids have to feel good about coming to school . . .

comfortable there before the proper learning can take place." Working toward that end, he frequently makes positively reinforcing statements in his concluding announcements (i.e., "I liked your behavior at assembly today, you were attentive and I hope you learned something as well") and advocates to teachers a disciplinary model that begins this way: "Son, I love you, you are a worthy person, but damn it, I don't like what you do."

To make his teachers feel good about themselves and to prevent "burnout," he believes in "strokes" in the form of "happy-grams." In his words:

> I can find at least two times a year when I write a happy-gram to every teacher and find something positive. Now with some teachers, I do more than that because they've just given a parent program that was really beautiful. Just natural things that stem from it. But I don't find Central Office giving those strokes at all. And I really think that they need to. And when I suggest it, they don't like it, they're defensive, but they don't have cafeteria duty. If they could just spend a day a year in each of those buildings. It wouldn't take many days. And just to sit in there and say, "Hi, I'm John Davidson..." or something and stroke the teachers at that level would do more than anything. . . .

It is, however, the extent of his efforts to involve the parents in the schooling process which is the most striking. Part of his approach comes through in these statements:

> I've got to read my community and what they're saying, and as a school administrator try to run the school according to how they're seeing education. And then I'm going to run it. But I think I'd better be reading them pretty carefully. And to read them, I want parents here. I don't want them running my school per se, but I really do need them close. . . . You see, I've always had the philosophy, if you've got a critical group of parents or public, you don't close the door on them. That will only make them more critical and suspicious of you. You've got to

> open the door. So any time I get criticism, I'll put them on a committee where I can sit next to them and I can talk to them. That's the only way you're going to win. If someone complains about the cafeteria, I'll say, "What are you doing tomorrow noon?" They may not see that there is a solution, but they will know that we're on top of it and are doing our best, and I've never found that not to work. But that's very hard to sell to the teachers--to not be defensive, to open up. That's very hard.

In addition to "reading" his community, Dr. Madison also sells his community by mobilizing a large network of parent classroom volunteers, by hosting monthly discussion groups in the evening, and by communicating with them as to the academic progress of their children on a weekly basis. He accomplishes the last by requring his teachers to send home every Friday a folder filled with each child's work for the week. The parents are to read and to sign these "Friday folders" and send them back with the children on Monday.

The end result of these efforts is a highly supportive community, but on occasion this strong principal-parent relationship is resented by teachers. As one Roberts teacher explained:

> A lot of these parents will go straight to the administrator when there is a problem rather than going to the teacher first. I don't know if this is 100% but I would say it's a good 85%. I feel if there's a problem they should come to me first, and many times it could be cleared up. What happens is, the administrator hears only the problems because they don't seem to go to the administrators when they're happy about something, they go to them for complaints and they expect something to be done.

Despite the pride that Dr. Madison takes in his school and his accomplishments, he speaks of some frustrations as well. One involves the refusal of his teachers to give outside time to the building of parent-teacher relations. His perspective on this situation comes through in these remarks:

> There was a time--we have an old-fashioned picnic here . . . where we and the families go and we play the kids at softball--the All-Star Team. And I would say to the staff, "Hey, at 2:00 can you give me an hour, and we'll play the kids and everyone can see and we can tousle their hair." Hey, now it's a power struggle. I'm lucky if I can get two teachers to come now. They all say, "You don't have the right to tell me what to do with my Saturday!" That's the way it is with the carnival, that's the way it is with everything.

A second frustration is the stress the teachers display concerning test scores, documentation of students, and the principal's evaluation of their teaching performance. In his view: "Teachers worry more about it than they really need to—it's easy for me to say, sitting here, but the teachers really worry about it more than I do."

A final set of frustrations for Dr. Madison revolves around the remoteness of the Central Office. Sometimes this remoteness leads Central Office staff to make unrealistic curriculum demands upon him:

> For instance, when career education came in I kept getting a call from Central Office, saying, "When are you going to have our team over to implement this with your staff?" And I would say, "How about letting me get this over with, and I'll call you back?" And all year I never called them back because I thought we were doing enough of those things. . . . Sometimes we have to play games with Central Office. Even in math, as an example, before the district went back to the basic stuff . . . they were writing a curriculum in math which was all you taught all day long. . . .

Sometimes, in Dr. Madison's view, the remoteness of Central Office staff prevents them from fairly evaluating his own performance:

> I'm working awfully hard, and yet my boss is never in my building. This building doesn't ever give him any problem . . . but I had two parents go to the superintendent this year because I couldn't answer their questions about how much longer this poor teacher was going to be traveling around the district and why she was still here. I said, "I don't know--that's not my problem. She was put

> here, you know." But it was on my evaluation that I need to handle these problems at this level. See, I resent my boss evaluating me based upon an unhappy teacher going to him or an unhappy parent, and who else is going to go? I propose that--and I wrote this out last time in my self-evaluation--that why doesn't my boss come over here two or three weeks before evaluation and I'll give him three teachers and he pick three teachers? Get a special teacher, get a clerk, get a first grade, get a sixth grade; and then they sit down, my boss and those people, and say, "How can my school be run better? Is it run effectively?" That's the kind of input I need. I can accept that, they won't be petty. I don't think, in front of my boss, they would be petty. If it is, it's his job to weed it out.

It is difficult to picture Dr. Madison's "boss" responding to such an evaluation proposal in any other terms than these: "Principals worry more about it than they need to. It's easy for me to say, sitting here, but the principals worry more about it than I do."

THE CLASSROOM OF MS. MARY CHURCH

Ms. Mary Church

Dr. Madison has four fifth grade teachers on his staff. All of them use ThinkAbout, but only Ms. Mary Church, a veteran teacher of 13 years, was willing to have an observer in her classroom on a regular basis. As the observation period wore on and Ms. Church talked more openly about her past, present, and future, she became almost as fascinating a subject as the ThinkAbout programs themselves.

What made Ms. Church so interesting was that she personified in many ways the experienced teacher's struggle against what is currently labeled as "burnout." Although she has been at Roberts School for ten of her 13 years, she consciously strives to have a rich and diverse life outside of the classroom. She speaks of the need for a balancing act in these terms:

> I think when I first started out, I was very much in tune to teaching, and I spent a lot of my time and my extra money on buying things for teaching. I don't do that any more because I don't find it as fulfilling as I once did. I think that's bound to happen, if you've gotten used to something and it becomes easy to you and you become good at it. . . . At one time, maybe I was filling the stereotype of the old-maid schoolteacher who did everything for the school, but I don't find that true any more. My life is just not that school. I have a great deal that goes on afterward. You have to. You lose those kids after a while. I really like my class, but yet if I am so attached to them and then they leave at the end of the year, what have I got left? I cannot foster on them all of this love and use them as a surrogate family. . . .

The "great deal that goes on afterward" goes mainly in three directions--church, sorority, and the Forest Hills Education Association. A graduate of a church-related college and a former parochial school teacher, Ms. Church maintains a strong tie with her church and sponsors

a youth group there. She serves as an officer of both her sorority and the association, but it is the association that receives the bulk of her time and interest. Currently, she is training to be a member of the district's negotiating team, and that in itself is a two-day-a-week commitment, from 4:00 to 6:30. Ms. Church spoke at length as to the personal as well as the professional benefits she has derived from her association work:

> My involvement in the teachers' association has been an answer to many of the problems and frustrations I have felt at school. . . . I find it very fulfilling, very stimulating. I have made new friends and now I really feel like I know what's going on. . . . When I say something at school, everyone perks up their ears--it's very ego-building. But the thing I like is that I know what's going on in other schools and districts more than I've ever known before. I know people--administrators at the administration building, board members--and I can talk to them and find out what's going on. I just have a whole range of talents that I never knew I had that are coming to the forefront, and I can do a multiplicity of things that I would never have guessed I could do. . . . It has given me more confidence--it has let me know where it's at and who is willing to help teachers, who is not, who is willing to be helpful to me and who is not, what my rights are and what my rights aren't. I'm first vice president of our association. I did some campaigning, but no one ran against me--maybe because no one wanted to run against me. It's nice to think that. Another alternative is that no one wanted the job. But I know I'll do a good job. I campaigned for one of the two running for president, and I could see when the votes came in that they did listen to me, and I was surprised. It was very ego-building in that respect. But they know you care and you're interested. It's been very self-rewarding to me. But at the same time, I really feel like I'm able to do something to help other teachers.

Because her outside interests involve constant afternoon and evening meetings, Ms. Church sets aside one day a week to stay after school to plan her curriculum. She explains her preparation time this way:

> I find I can do a pretty good job of preparing my reading math groups, spelling and language arts in a couple of hours. I have that part pretty much

> down pat. But something new, where I have to read the material and so forth, takes a little bit longer. Then for science and social studies and those extra types of preparation, I pull back on my resources—a lot of that is from what I've done in the past.

The four areas that she prepares for correspond directly to her definition of basic skills:

> Basic skills, to me, involve reading, a thorough knowledge of reading skills and the other communications or language arts skills—being able to write clearly what they are thinking, being able to speak clearly what they are thinking, being able to listen and understand, and spelling—and math skills. . . . Science, social studies, and health are secondary. I would not have a child in elementary fail in those areas.

Despite her disagreement with the district's policy of including science and social studies in the fundamental skills program, she is generally supportive of the back-to-basics movement.

> I think basically something was needed to get children concerned about grades, and more kids are concerned now. There have to be some standards, basic standards they have to meet.

She does not, however, support the practice of holding teachers accountable for their students' test scores:

> I feel the pressure very strongly. Now this is the first year we didn't have a printed list of test scores with each teacher's scores, and their class average listed separately, but I do feel that our principal bases a lot of his evaluation on a teacher's test scores. I don't think he takes into account where the kids were or what type of child they have, or if their class tends to have a higher average class or lower average class. . . . And the ironic thing is that if you give a skill test right after you've studied it, then most of them can get an 80% on it. You wait a couple of weeks, and then you give it to them and they'll say, "Well, why didn't you give this to us before? We've forgotten it." So do these tests really show what they've mastered? If they

> can't master it two weeks later, have they really mastered it, or are we really just teaching it so we can make a little chart of however we want it to look?

If Dr. Madison gets around certain Central Office expectations by "playing the game," Ms. Church claims to cope with some of the Roberts School pressures by "covering myself in certain areas [reading, math, and language arts] so that they don't realize what is not being done in others [science, social studies or health]." Her actions seem to bear out her claims. During the first quarter, there were three math and three reading groups and spelling every day, but no lessons or written assignments from the social studies texts or the health book. The week before first-quarter report cards, however, the children were assigned a map skills work sheet, and a Weekly Reader for a social studies grade as well as a drawing of the human eye for a health grade.

Because "it came from the State Department and the district was behind it," the inclusion of ThinkAbout into Ms. Church's curriculum did not involve any of the above game playing. It was, however, through the teachers' association that Ms. Church first became interested in ThinkAbout. At her own expense, she had attended a State Department conference in August where there was an introductory session on ThinkAbout. She was so immediately impressed that she asked to represent her district at the county workshop in September. Because that workshop came to be held at one of the high schools in the Forest Hills district, Dr. Madison and other principals in the district were also in attendance. As a result of this exposure, Ms. Church's initial enthusiasm for ThinkAbout was in turn strongly supported by the district in general and Dr. Madison in particular.

Ms. Church's Classroom

At 8:50 each weekday morning, playground activities at Roberts Elementary School come to an abrupt halt. Obediently responding to the signal of "the bell," children stop their play and rush past the teachers "on duty" and through the glass doors onto the ground floor of their school building. The older children bound quickly up two flights of steps, and approximately 22 of them head halfway down the hall toward Ms. Church's fifth grade classroom. Almost without breaking stride, they rush past or between the scattered islands of desks toward the back wall, which is essentially a long narrow closet with rows of coat hooks and accordion folding doors. They fling their coats on a hook (inevitably one or two fall to the floor and are left there), drop their lunch boxes, disperse themselves into different parts of the spacious room. Most seem to drift into small sex-related groups. Clusters of three or four girls talk of last night's television, little or bigger sisters and brothers, upcoming family and church events. Oftentimes they admire and try on each other's necklaces, bracelets or hair barrettes. Many of the boys tend to be more physical in their conversation, good-naturedly pushing, shoving, and sometimes even chasing one another around the room. A small mixed group usually congregates around Ms. Church's desk, where she is trying to organize her materials for the day. Each child seems to be vying for Ms. Church's reaction to some past or future happenings at home. Some of the children go their individual ways--one plays with the classroom gerbil, several rummage through their desks, and several others do their morning jobs. Above Ms. Church's desk in the far corner of the front of the room is a bulletin board that has a list of

students' names and job cards for every conceivable classroom management task. There is even a job card for the task of rotating the other job cards on a weekly basis. The two critical jobs before 9:00 are those done by the furniture and lunch monitors. The furniture monitor walks around and removes from the tops of the desks the chairs that he put there at the close of school the day before so that the custodian could sweep more easily. The lunch monitor draws on the chalkboard three columns which he labels "lunch," "milk," and "nothing" and walks around reminding the children to "sign up."

After 9:00 or a few minutes thereafter, Ms. Church, still seated at her desk, tells the person responsible, "It is time for the pledge." He or she stands solemnly in front of the flag, hand over the heart, and "leads" the recitation of the Pledge of Allegiance while the others stand equally solemnly at their desks. After the pledge, the monitor reads the lunch count--17 lunch, 0 milk, 5 nothing. Ms. Church asks the lunch monitor to read aloud the names of those under "nothing" and then she says, "Let me see those of you who brought your lunch." Each of the students then marches back to the closet, picks up his/her lunch box, and holds it up so Ms. Church can verify that he/she does indeed have a lunch. Next she announced, "Those who are buying, check that you have money now." She waits while they check and finally concludes with "Everyone has lunch money, okay."

These early-morning rituals have a rather pleasant, easy rhythm which seems to provide an opportunity for both students and teachers to ease into the day. The students slow down and unwind from the playground activity, and Mrs. Church gathers momentum for the long day ahead.

The day itself also has several predictable and regular segments. Each morning, before the students arrive, Ms. Church writes the "schedule" for the day on the chalkboard, but there is not much variation across days. On Tuesday and Thursday, the lineup looks much like this:

9:00	Pledge, etc.
	Spelling
	Language
	Reading
11:15	Lunch
11:45	Story time, rest room
	Math
1:00	ThinkAbout
	Finish math
	Snack, rest room
	Social studies (or science)
2:45	P.E.
3:15	Summary
3:20	Announcements
	Dismissal

On Mondays and Wednesdays, ThinkAbout is omitted, and music, art, and library are inserted for 30 minutes each. Within each day there is also less diversity than the schedule implies. Although language, science, and social studies consistently appear on the board, they rarely occur. Each day therefore tends to break down into the same three large segments: spelling (with language occasionally incorporated), reading, and math.

In order to capture and convey the substance of these curricular areas, the teaching style of Ms. Church, and the overall flow, form, and flavor of Ms. Church's classroom, excerpts of field notes from a single day, October 30, are now presented and reflected upon. Since math was regularly interrupted by ThinkAbout, field notes from that segment are also included, but the discussion of that program is deferred until ThinkAbout is discussed more generally.

9:15-9:40 Spelling (and Language)

The lesson begins this way: "Today we are going to review working on dividing words into syllables. I say review because all reading groups have had this."

Reading from and then following verbatim the directions in the spelling manual, Mrs. Church writes on the chalkboard "elections," "welcome," "us," and asks, "How many syllables in each?" . . . Next she writes "fourteen," "be," "perfect," and "envelope," and asks, "Where shall we put the dots? . . . A dictionary doesn't put dots between syllables--what does the dictionary do?"

Student: Dashes.

Ms. Church: No, they leave a space. Every syllable has to have a what sound?

Student: Vowel.

Ms. Church: Listen to these two words and tell me how they are alike--"sweet" and "sweetly."

Student: Both have "sweet" in it.

Ms. Church: What do we call that?

Student: The root?

Ms. Church: Yes, or base word. What do we call "ly"?

Student: Suffix.

Ms. Church: Look at these base words, what can we add in each? "Play," "sing," "light," "bright."

The students correctly add suffixes to the first three, but two make mistakes with the last--"brightless" and "brightful." To each she says simply, "No, there is no such word." She then makes an assignment in the spelling book which is practice in syllabication and suffixes, goes over the directions and announces, "This is due tomorrow so you have something to work on during reading groups. Also, some of you have not turned in your 'spook letters' and I need those today."

This spelling excerpt, brief though it be, reveals a number of

regularities regarding Ms. Church's teaching style and curriculum. First, spelling (and occasionally language) functions in a practical sense as an opening activity so that the entire class is occupied when smaller reading groups begin. Second, the text is followed faithfully. Ms. Church never skips a lesson in any book, even though students may have had the material elsewhere. Third, students are given little rationale either for doing work or for the work itself. The absence of any explanations related to the meaning of different suffixes or the usefulness of syllabication is typical in all subject areas. Fourth, there are few explicit transitions. Shifts from one concept (syllables) to another (suffixes) without explanation in a single lesson are commonplace throughout the day. Fifth, much of the teacher-led questioning in all subject areas requires students to give short or single-word factual answers (i.e., vowels, suffixes, root word). Finally, when "language" as a specific activity does occur, it is usually letter writing (there was only one exception in the two-and-a-half-month period). The "spook letter" alluded to is a Halloween note to a class of first graders.

9:40-11:15 Reading Groups

Ms. Church walks back to the corner of the room where there is a round, low table and stools.

Ms. Church: I'd like to see the Happy Hunters. (Group assembles (7).)

Can I see your worksheets?

(Ms. Church checks and puts a grade on each one while the children sit quietly. She then returns them and asks for their scores, which they read aloud and she records in her book. Rita, who has left hers at home, is reprimanded and given a new worksheet to do

"immediately." Ms. Church distributes test booklets.)

Turn to test 6 in your test booklet, do subtest 6 on page 11, I'll call you back after I meet with the other group.

(Ms. Church returns to the desk in front of the room and helps John, who comes in late from music with the spelling assignment.)

Ms. Church: Jim, Donna, and Norma, you have not turned in preassessment tests 8 and 9.

(She writes names on chalkboard.)

Ms. Church: I'd like to see the Daring Devils.

(She and group go to back table. Ms. Church collects and grades individual workbooks while children wait. Returns and calls out names. Children read grades aloud and she records.)

Several Students: Are we supposed to correct these?

Ms. Church: It's obvious what the correct answers are. See if you can figure it out.

(Ms. Church then opens the reading manual and reads aloud these questions:)

Do you think some of the events in "Witches and Onion Sandwiches" were funny? Which did you think was the funniest?

(The students shout out several unrecognizable answers.)

Ms. Church: (Reading from manual) The way the story was written helped make it funny, too. Turn to page 102 and 103 and then reread the directions to the play and find the phrase that is repeated.

Student: Oh, I know.

Ms. Church: Reread first.

Student: "Of course."

Ms. Church: Right, what other phrase is used over and over?

Student: "Beautiful," "unhappy daughter," and "princess."

Ms. Church: What other phrase?

Student: "Christmas."

Ms. Church: No, it's a phrase the author uses, it's on the top of 102 and 103. (She waits, but after students cannot answer she says:) There's two more really. "Carrying on" and "like crazy." (Then she reads from her manual.)

These repetitions contribute to the humor--you come to expect them. What word did Mrs. Stuyvesant use often?

(Three guess incorrectly, and finally Ms. Church hints.)

It's on page 107 and 108. What word did Mrs. Stuyvesant use?

Student: "Kindly."

Ms. Church: Right. How does Elizabeth show Mrs. Stuyvesant was insincere even though she used "kindly" a lot?

(When after several minutes no one can answer, Ms. Church does.)

Ms. Church: By repeating the word herself.

(The children do not seem to understand the sarcasm and humor that is conveyed by the word "kindly." This type of questioning continues, but with students now being asked to find examples that show how the author uses comparisons to convey meanings, i.e., "smelled like a glue factory," "smiling like the Mona Lisa." The students don't seem to take much from this. Most, for example, indicate that they don't know the Mona Lisa, and this session ends with Ms. Church distributing post-tests 10 and 11 for them to do at their seats.)

Ms. Church: I'd like to see the Magic Marvels. (5 assemble.) Okay, I'd like you to pay attention to this because the other groups had trouble with it.

(Each student is given a skill lesson worksheet. Ms. Church begins to read verbatim and in a rote manner from smaller manual entitled Reference handbook.)

Ms. Church: What would you do if you want to find what a book about cameras can tell you about lenses? Would you thumb through the pages, hunting here and there through the book, hoping that what you are looking for will catch your eye? The table of contents at the front of the book can help you find information more quickly. Unlike the index, the table of contents is a general guide to the broad topics of information contained in the book.

(After reading some more general information, Ms. Church goes over Part A of the worksheet and has whole group read aloud the section entitled "Things To Remember Using a Table of Contents." Students read as if decoding rather than comprehending. Finally she asks students to do Part B, checking what they have learned, warning:)

Ms. Church: Be careful to note what it is asking for. If you don't, you will get it wrong. Do it now.

(She sits and waits while children work. As each child finishes, she takes the sheet and she checks. Three have it right. She praises them.)

Ms. Church: You did a good job of reading carefully.

(They are sent back to their seats to do workbook page 10. Two who don't get it right are asked to look at it again. One turns hers in again, but it is still wrong. Ms. Church begins to ask her some questions, and she finally figures it out. One never does, even though Ms. Church works with him, and he is eventually sent to his seat.)

Ms. Church: I'd like to see the Happy Hunters back here (first group).

From this lengthy excerpt, much more of Ms. Church's curriculum, teaching style, and classroom process emerges. The most striking and obvious fact is that there is an elaborate and systematic reading program with a heavy emphasis on mechanics and testing. Ms. Church has adopted a basal reading series in its entirety. In addition to reading stories and "discussing" them for comprehension and interpretation, the

children are taught individual reading skills in an involved and highly time-consuming sequence which includes (in this order) a pretest, a skill lesson, workbook practice, a post-test, review exercises, and a mastery test. (Occasionally there is even a "bonus sheet" for enrichment.) In fact, so much time is spent on the mechanics (i.e., using the pronunciation guide, using the table of contents), relatively little time is left for reading stories. Over a 2½-month period, the students actually read four stories in their reading books.

Second, one can see that commitment to such a program involves enormous amounts of paperwork and record keeping, and that Ms. Church chooses to do most of it during reading time. This means that anywhere from half to all of the teacher's time in reading groups is actually spent doing clerical work.

Third, it is apparent that "discussions" of literature, when they occur, may involve a mechanically read set of questions from the teacher's manual (which often do not reach the desired goal). In the excerpt above, for example, there was no teaching of the concept of "style" and no reading aloud of the supposedly humorous passages to capture the effect of the repetitions. Ms. Church instead doggedly followed the questions in the manual, and the "discussion" on the sources of humor in literature seemed rather painful for most of the students. This almost total dependence on the manual is seen throughout the day.

A fourth characteristic that surfaces is Ms. Church's commitment to mastery. Each child is expected to get 100% on one skill before he goes on to the next.

Finally, skill teaching (i.e., using a table of contents) is

invariably done through worksheets. Students do not, for example, look at a book with a table of contents to learn or practice the skill.

If there have not been too many interruptions, the three reading groups are usually finished by 11:15, which is lunchtime. At 11:45 the students are back in the room, and 11:45 to 12:15 is story time. Ms. Church reads aloud to the entire class, and both Ms. Church and the children seem to thoroughly enjoy the experience. Ms. Church reads expressively and enthusiastically (in great contrast to the rote reading from the manual in the morning), and most of the children listen attentively and sigh with disappointment when she stops. (A few fidget and whisper.) Math is to the afternoon what reading is to the morning--the main order of business. Technically, there are three math groups, but occasionally, as in the excerpt below, one group is further subdivided. The following excerpts from the field notes of the afternoon of October 30 convey some of the substance of the mathematics curriculum as well as some additional insights into Ms. Church's teaching style and classroom organization.

12:15 Math

> Ms. Church announces: "I want to see the Bionic Brains--the page 11 people." Three children arrive at the back table. Ms. Church tells them to "exchange papers" and then writes 30 answers to subtraction problems on chalkboard. After papers are returned and checked by the "owner," students are asked to read scores aloud so that she can record them. Two of the three who scored high--100% and 97%--are told to "go on to page 12." To John, who scored 77%, she says, "That's better than yesterday, but you can do better. Correct your paper before you go on to page 12."

12:25 "Okay, the rest of the Bionic Brains." Six come to round table. She again says, "Exchange papers" and then puts answers to page 12 (35 in all) on chalkboard. After grading and returning papers,

children read aloud their scores. "Rita, eight wrong, that's not good—you'll have to do something else. Carla, Stanley, Susie, and Ken, go and do the test on page 28. Rita, correct your mistakes first. Stanley, erase the board. Dan, good, alright, do page 12 and then go on to the test. Rita (her head is now on the table and she looks dejected), you can leave now."

12:38 "I'd like to see the Crazy Calculators." (Six arrive.) "This should have been a very easy assignment for you." She once again puts answers on chalkboard (12), and the checking, grading, returning, rechecking, and reading aloud of scores sequence is repeated. Ms. Church gives them two subtraction problems to work on at the table (141 - 94 and 150 - 78). When they are finished, she looks at each one individually. "I don't think you'll have any problem with the next assignment." (These were the first two.) "Do page 32. Everyone leave but Ken. I want to see your paper, Ken."

12:55 Ms. Church looks up and says, "Who's supposed to get the TV?" (Two kids go out.) As she begins to analyze Ken's mistakes, Rita comes back with her corrections. She works for about two minutes with Ken, asking questions like "What is 6 from 9?" and then sends him back. "Just do two rows and put down the time you stop so we can see how long it takes you." She works a minute or two with Rita: "You still have this wrong. How can you take this from this? Rita, you are forgetting your basic facts. Bring me your textbook. Okay, turn to page 28. There are 20 problems, and check these and see if you can pick up your mistakes." (She stops math for ThinkAbout.)

ThinkAbout Program 13: "The Bigger Picture."

Before the Program

As the program is starting, she says:

> Boys and girls, this program is talking about context. We've talked about context before, haven't we? This morning on the playground, some kids asked me what blanks meant. At first I didn't know what they were talking about, but when I finally figured out they meant on their report cards, then I could answer them.

During the Program

Nellie yells out: "I saw this at home yesterday."

John is fidgeting with his calculator, but the rest watch very quietly and attentively. John finally is drawn in and begins to watch.

After the Program

Ms. Church: (Reading from guide) What did the man mean--it's hard to get the meaning without context?

Student: It depends on the situation.

Ms. Church: Do we sometimes take things out of context?

Students: Yeah.

Ms. Church: Can you think of any examples?

Student: Kids on the playground say, "You dummy, you can't catch the ball"--they're just teasing.

Student: Sometimes you make fun of people when they make a mistake.

Ms. Church: How did it help Danny's relationship with his mother when he started to see the bigger picture?

Student: Until he got the picture, what she said sounded bad.

Ms. Church: What did he understand?

Same Student: That his mother was having a bad time.

Ms. Church: So he uses it to explain that she had things that were important to her too. When she said, "Danny is a problem and he isn't going to go away either," what do you think she meant?

Student: She had to buy clothes for him.

Student: She has to have time for herself.

Student: She could cook while he paid the bills.

Ms. Church: What about the reverse?--I'm for women's liberation. If both work, should both work

around the house? How many of you have two parents working?

Student: (male) I cook.

Ms. Church: Are you a good cook?

Student: (male) I can cook lamb chops.

Ms. Church: Do you think it's important for boys to know how to cook?

Student: (female) If the mother passes away--

Student: (male) What if you're married and your wife is at work and you are at home and the kids say, "I want something to eat"?

Student: (male) Sometimes my dad will fix himself a hamburger. I can cook too, I can bake a cake and--

Student: (female) When my parents used to live together, my dad would go to work early and be home at 2:00. My mother doesn't get home until 4:00, so he cooked--but not so good.

Student: (female) My uncle can't cook--his hard-boiled eggs come out bad. If a wife passes away, a man should know how--

Student: (male) My brother goes crazy with instant things, he likes cooking everything from scratch.

Ms. Church: (1:25 p.m.) I want to see the last group, the Mathematical Menaces (high group).

Three arrive. She begins by reading aloud a group of answers from yesterday's assignment and then she asks the students to put their answers to another group of problems dealing with the function rule on the chalkboard. Only one gets his problem right. She helps others see their mistakes by asking them questions and collects papers, saying, "Aren't you lucky I'm not taking grades today? Now, turn to pages 40-41." Ms. Church reads the introductory sentences and then talks through the examples. Students are asked to work out problems 1 and 2 on page 40 and number 4 on page 41. They do them correctly. Then she asks if, using

> 9, 3, and 6, can they make a mathematical statement? Three can and one cannot. She asks the three to leave and she works with Terry until he says, "I get it." It is 1:55, and she tells everyone that they can go to the rest room and eat their snack. While they are gone, she gets flash cards for Ken and asks the two girls who sit at his island to help him to learn his facts.

The above field notes suggest that mathematics, like reading, is taught systematically, slowly, and molecularly, with an eye toward mastery of each increment. For the first two (and, in this particular instance, three) groups, the process is typically routine and repetitious--practice, checking, correcting of textbook problems on basic operations. Those who fail on one page do not go on to the next until they have corrected their mistakes; those who fail repeatedly do not take the mastery test until they have had individual help and more practice problems. Formal instruction on underlying concepts or opportunities for application are nonexistent. There is instead drill on textbook problems at their seats, and checking and instructions for more drill during math group. Instruction takes the form of supervising students working sample problems of the next assignment. The teacher's role is primarily one of giving assignments, keeping tabs on who is doing what, and working individually with those who have difficulty. In the highest math group, there appeared to be more instruction on the part of the teacher in the form of questions and more thinking required of the students. The same mastery approach exists, however, for Terry is not sent to his seat until he says, "Oh, I get it." Everyone seems to sit and wait for long periods of time.

When Ms. Church was directly asked about the amount of time in math groups given to "checking," she made explicit her commitment to

"mastery": "I can't think of any alternative. If I would wait to grade their seat work until after school or at home, I wouldn't know what assignments to give them. I don't want them to go on to the next page until they can do this one."

Math, as Ms. Church handles it, does more than enable the teacher to keep track of a student's progress; it enables the student and his peers to keep track as well. The frequent grading and public recording of scores often seem to cause the lower-scoring students some discomfort. For example, while it was not clear whether Rita was distressed because she did poorly or because her classmates knew she did poorly, her distress was unmistakably clear.

From 2:00 until 2:45 on October 30, some children carved the class Halloween pumpkin, while others helped Ms. Church with the sorting of some Halloween UNICEF materials. On other days, this time slot was used for social studies (the Weekly Reader or map skills) or science (a worksheet on the physical properties of matter) or for any other activity that needed finishing or starting. In fact, this 45-minute block seemed to provide a crucial flexibility that permitted the day to somehow stay "on schedule."

P.E. was from 2:45 to 3:15, and when the children breathlessly returned from the gym, they prepared for leaving. The furniture monitor started stacking the chairs on top of the desks, and the chalkboard monitor started erasing the board. The children started grabbing whatever they wanted from their desks (before the furniture monitor got to them) and then dashed to the back of the room to grab their coats and lunch boxes. They stopped what they were doing to listen to the principal's announcements and the dismissal sequence. Ms. Church

stood at the door and talked to those who had to wait while the first groups left.

By 3:35 the classroom was empty, and the school day, which had been long, full, and busy for both teacher and students, had come to an end. For the children, the bulk of their time within the classroom had been passively spent following directives and instructions, doing textbook, workbook, and worksheet exercises on isolated skills, taking mastery tests on isolated skills, and answering factual questions in teacher-led discussions. The "breaks" in this routine had come in the form of ThinkAbout, story time, and the special Halloween activities, with only the latter calling for any movement. For the teacher, the bulk of her classroom time had been spent in giving directives or reading instructions; distributing, collecting, grading, recording and keeping track of paperwork; and individually helping those who had trouble with their paperwork. The breaks in this routine were the same for her--story time, ThinkAbout, and the special Halloween activities.

Most days in Ms. Church's classroom are more or less like October 30--that is, more paperwork and less activity. In fact, since most of the special activities occur only at holiday time, it appears that Ms. Church regards holidays as the only justification for a major change in the routine.

Nobody seems to particularly like spelling, reading, or math. The children are frequently restless and talkative while working at their desks, and there are constant reminders to "get back to work." Ms. Church admits to dawdling at her desk too long in the morning to avoid starting reading groups and to sometimes prolonging story time or a ThinkAbout "discussion" because she "isn't up to starting math groups."

Nobody, however, seems to question the "work," either in substance or in process. When asked if it was difficult to sit so long at their desks, most of the children said something to the effect that "we have to do this work so we can learn." When Ms. Church was asked about all of the paper-pencil assignments, she maintained that "the children need all the practice on these skills they can get."*

Acceptance and a lack of questioning are in fact trademarks of Ms. Church's classroom. The children unquestioningly accept not only the work and the routine, but the teacher as the ultimate and legitimate authority in all areas. The children smile at her praise, wince at her public reprimands, frown at some of her directives, but are completely resigned to the fact that she has the right to give them. Ms. Church seems equally unquestioning and accepting of her teaching and management style. She is comfortable with her routine, authoritarian status, "molecular" and "mastery" approach, and her total reliance on teachers' manuals. For her the text, along with the teacher's manual, is the ultimate and legitimate authority, and the security that such adherence brings came through as she spoke of her satisfaction with her reading series:

> I think it's excellent and I think it's almost foolproof too, teacher-wise. It gives you questions and answers. It gives you not just the recall type, but it gives you inquiry and creative-type thinking ones

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*This commitment to textbook drill, as opposed to opportunities for application, remained steadfast even in the face of direct evidence that the children needed something more. On one occasion, after several weeks of practice with subtraction problems in the text, one reading group could not figure out how to find the age of the first woman cosmonaut in their story when given the year of her birth and the year of her entry into the space program. After Ms. Church hinted to "subtract," they all put the earlier year on top.

which I really like. Those are all open-ended and can get you into the best discussions. I'm not saying that every teacher does it, but if you follow that book, it would almost be difficult, I think, not to teach correctly. . . .

THINKABOUT IN MS. CHURCH'S CLASSROOM

Classroom Use

While the active "breaks" in Ms. Church's curricular routine were confined primarily to holidays, the story-time and ThinkAbout breaks were daily regularities. Although Ms. Church used a variety of instructional television programs, ThinkAbout was clearly accorded the most time and attention over the year.

Viewing Patterns

Ms. Church's students saw almost every one of the 60 ThinkAbout programs. They viewed them sequentially as they were aired on the local educational channel, and the only event that interrupted the regular Tuesday and Thursday afternoon pattern (other than school holidays) was a two-week set of rehearsals with another class for a spring assembly program. Although Ms. Church had the opportunity to watch the missed programs on cassettes, she opted not to do so because of the time and logistics involved. (The cassette equipment was located in the principal's office, and viewing had to be done in the hall outside his office.) Ms. Church termed the consistency of their ThinkAbout viewing a "habit."

> There are several other programs I used to watch, but I haven't this year. But I still consistently watch ThinkAbout--it's sort of a habit I got into. The kids won't let me forget now. We just do it.

Teacher Preparation

Ms. Church did nothing in the way of advance preparation for using the ThinkAbout series. In fact, one of the reasons she gives for her frequent use of instructional television in general is that it requires no prior planning. In her words:

> I don't have to spend a lot of time playing with it, and I can use it and go on from there.

She also explained, however, that she expected explicit directions in the teacher's guide:

> When I use TV, I like it to be right there for me. I like it to let me know exactly what to do. If they have a suggestion for a game or something that will bring a point up, I want it written. If I have to come up with all those ideas on my own, then it's just as easy for me to use the textbook or to use a film or something. So the immediacy of it is very important to me.

In Ms. Church's view, the ThinkAbout guide fell short in terms of explicit activities that "are very easy to use," and she cited the guide of Free Style as a model:

> Everything was really in the manual to tap into-- the activities before and after. You could spend almost an hour with that program alone.

Student Preparation: Before the Program

While Ms. Church did not prepare herself for viewing, she obviously was committed to the idea of preparing the children, if only in the briefest and most general way. There was never a time when she simply turned on the set. Instead she invariably stopped math groups several minutes before the 1:00 viewing time, and as the TV monitors wheeled the portable set in from the hall, and the children scooted their chairs to the front of the room, she went to her desk for the teacher's guide. Then, oftentimes amidst the noisy chair moving and above the sound of the ThinkAbout musical theme, she would read directly from the "Before the Program" section the suggested "guide question," i.e., "This program is about giving and getting meaning. Watch how this is done and for what causes misunderstandings." Because she only allocated one or two minutes for preparation, when the guide called

for a preliminary discussion or activity she either ignored it (as in numbers 6 and 10), *or she abbreviated it.* (Her brief remarks on context in the transcript cited above were her response to the guide's directions to "discuss" context with the children.)

In addition to being brief, the introductions focused only on the individual program to be viewed. There was never any reference to one segment being the beginning or the end of a series of related programs or to a "cluster" theme. In fact, the word "cluster" or the idea of a cluster was never mentioned during the observation period.

On at least two occasions, Ms. Church, in quickly glancing down at the guide, inadvertently read the wrong introductory remarks. While the children didn't seem to notice or mind (her apology on one occasion brought a quick student response of "Who cares?"), these occurrences prompted her to suggest a more readable format for the guide:

> I would have liked each lesson on its own page, even if there was a half page empty . . . it would have been much easier to get to rather than looking down here because some of them start down here at the bottom.

<u>During the Program</u>

While the program was in progress, Ms. Church alternately watched the screen and scanned the "After the Program" suggestions in the guide. The children, on the other hand, rarely took their eyes off the screen. There was a slight amount of restlessness (shifting and squirming) during the first half of Program 9 (attention picked up when a slight story line developed in the second half) and during parts of Program 12 (where there was no military action). During the rest of the programs, however, the children consistently sat totally

engrossed, laughed (and sometimes even cheered) at appropriate places, and often sighed in disappointment ("Ohh!") when they were over.

Other than some half-hearted "complaints" about the shortness of the programs, the only negative comment voiced related to the open-endedness of some of the episodes. Invariably, however, some righteous classmate would mockingly answer this way: "They want you to 'think about' it."

After the Program

Ms. Church was as religious about processing ThinkAbout programs as she was about introducing them. Generally, there was a 10-minute "discussion"; occasionally there was a slightly longer activity. In either case, student behavior was markedly less attentive. In fact, the final musical theme of the program seemed to serve as an immediate signal for stretching, scooting of chairs, and talking. A "Now wait a minute" from Ms. Church would temporarily recapture the attention of some, but the grip that the televised episode had held them all under was clearly gone.

Discussions immediately following the programs. Following the teacher's guide, Ms. Church usually posed a series of questions, and amidst a generalized restlessness and din of shuffling, scooting, and whispering, many of the children eagerly raised their hands. Unfortunately, a number of interactive factors often made their verbal responses difficult to understand and assess. First, since the children exhibited far more interest in having a turn to talk than to listening, their answers sometimes did not even address the question. Secondly, their answers oftentimes were brief, mumbled, or incoherent. Thirdly, Ms. Church never probed their limited responses or asked for

clarification of ideas. Finally, on some occasions, either Ms. Church or the students would take the discussion far afield before it was clear if there was understanding on prior points. The October transcript above can serve to illustrate some of these assessment difficulties. For example, in response to Ms. Church's request for instances when "we sometimes take things out of context," the following two were given:

> Kids on the playground say, "You dummy, you can't catch a ball"--they are just kidding.
>
> Sometimes we make fun of people when they make a mistake.

On the surface, the first child appears to have some grasp of the concept, and the second does not. That judgment, however, would be difficult to defend, for at least two other possibilities exist. Both students could simply be relating to the "put-downs" between Carpenter and his friend, and actually have little understanding of the concept of context, or both could be trying to say that words take on different meanings in different contexts, with the first being more articulate than the second.

Similar difficulties arise when one examines the two answers to the question, "When she said, 'Danny is a problem and he isn't going to go away either,' what do you think she meant?" On the one hand, these responses--"She has to buy clothes for him," "She has to have time for herself"--could mean only that they can see some of the mother's difficulties. On the other hand, one or both of these children could be trying to communicate their recognition of a picture that is bigger than a mother not having time to take her son to the movies.

Since Ms. Church did not, in either instance, ask students to

explain or develop their statements, or press them to deal explicitly with the meaning of the phrases "Danny is a problem" and "He isn't going to go away either," one interpretation seems as valid as another.

Another aspect of the "bigger picture" discussion above that was typical of many of the others was the opportunity for students to share some personal experiences and their enthusiasm for doing so. In this instance, Ms. Church raised the issue of both parents working; in others she asked, "Have you ever estimated anything?" "Have you ever visited a place that revealed something of the past?" "Have you ever gotten the wrong meaning?" There were always more raised hands for these questions than for those relating directly to the program, and one may speculate that these kinds of questions offered a welcome opportunity to participate in conversations that had no single right or wrong answer and that had some link with the rest of their world.

One final noteworthy aspect of the "bigger picture" discussion was the lack of closure. She cut off the tangential interchange regarding male cooking with the announcement, "I want to see the last math group--the Mathematical Menaces." Rather than summarize, generalize, or relate any of the programs' concepts to the rest of the day, Ms. Church frequently stopped when she felt it was time to move on, and thus the entire ThinkAbout process came through as a 30-minute break during math time. (Even when the ThinkAbout program was dealing primarily with the mathematical concepts of estimation and approximation, there was no connection to math groups.)

While "the bigger picture" transcript is illustrative of several characteristic aspects of the after-the-program "discussions," there

were others as well. The following "discussion" transcript from one of the children's favorite programs--"the one about the UFO"--reveals two of the most salient.

T: Let's review the program. How did Pete and Marty solve their problem?

P: They researched and found out what UFO's are.

T: Let's go over that step by step. What did Marty do?

P: He talked to people in the neighborhood.

T: What did Pete do?

P: He went to the library and used the card catalogue.

T: What did he discover about a lot of the books?

P: Too old.

T: Pete then got help from the librarian. What kind of help did she give him?

P: Groups--associations.

T: What was Pete going to do when he found the numbers?

P: Call them.

T: Why didn't he do that?

P: It was too expensive.

T: Then he was going to do what?

P: Write, but it would take too long.

P: (Another pupil) He decided to call on one that was real close.

T: How was the meeting helpful?

P: It showed him it was a hologram.

T: Do you know what that is? What could we do to find out what a hologram is? . . .

The lesson ended with several children looking up the word in several dictionaries and an encyclopedia, and Ms. Church noting that

it was not in some of them because it was a relatively new term.

The most obvious feature of this teacher-pupil interaction is that it is a "recitation" rather than a genuine discussion. Most of the observed "discussions" were essentially a two-stage process that began with a similar series of recall questions requiring only brief factual answers and ended with a sharing of personal experiences (as in "the bigger picture").

A somewhat less obvious but perhaps more significant feature of the UFO discussion is that it does not explicitly focus upon the key point of the program--that it is important to consider as many sources as possible. Although in their recitation the students recalled different steps pursued, there was no indication that they saw these as a variety of different sources for collecting information. (The word "sources" was never used.) An indication that they did not see or at least remember these, however, did manifest itself exactly two weeks later when Ms. Church assigned oral reports on Christmas customs. After making the assignment, the following interchange occurred:

T: What are some of the possibilities you can think of?

P: Russian customs.

P: (Another pupil) Different names.

T: Yes, it could have different aspects. Where are you going to find information?

P: Encyclopedia.

P: (Another pupil) School library.

P: (Another pupil) Bookmobile.

P: (Another pupil) Public library.

These sources certainly do not suggest much variety.

As the students imagined and mentioned a variety of possibilities for each phrase, the message that came through was, the same words can have multiple meanings. The key idea, however, that different backgrounds or personal experience can cause one to interpret things differently was lost in this interchange, as was Ms. Church's conclusion.

Another instance of "missing the mark" can be seen in the discussion following Program 12 ("But What Does It Mean?"). According to the guide, this program is about interpreting the meaning of a written communication by questioning and discussing. The program itself deals with two young girls trying to interpret some World War I letters and mementoes that were written by an old beau of their great-grandmother's. The discussion moved along in this direction:

T: How did questions help the girls get the meaning?

P: They tried to figure out the terrible secret.

T: Do you think the terrible secret is that he died or something else?

P: It's probably that he felt that he would get killed.

P: Sometimes people are dead, but walk around.

P: I think he was afraid.

P: I think it wasn't that he was afraid--maybe he knew something else that was terrible.

T: Was it wrong to be afraid?

P: Maybe others knew what to expect before they went into it.

T: Does expecting it make you less scared?

P: No.

T: When he saw his friend killed, it shocked him. Do you think talking about something can make it clearer?

P: Yes.

Failure to focus on the key idea of a program was, in fact, a common ThinkAbout occurrence. For a variety of reasons, Ms. Church's approach to discussion seemed to frequently "miss the mark" in terms of the key idea. Part of the discussion on Program 14 ("Where Are You Coming From?") is a case in point. The key idea as revealed in the episode and as stated in the teacher's guide is "Because people have different backgrounds they may interpret the same information differently." The discussion that followed, however, based on some suggestions from the guide, went like this:

T: Listen to this: Call me, we'll talk about the broken glass. What does that mean?

P: Could be broken glass in the car.

P: (Another pupil) House window glass.

P: (Another pupil) Maybe a lady had a baby-sitter and had a glass on the table and broke it—maybe they are talking about throwing a rock at the window.

P: (Another pupil) Or snowball in the store glass window.

P: (Another pupil) Maybe if you were at a friend's house and drinking Kool-aid, you dropped it.

T: Try this one: Meet you at the races at 2:30. Be ready.

P: Could be a sports race.

P: (Another pupil) Or a horse race.

P: (Another pupil) Or a dog race.

T: What does "be ready" mean?

P: Maybe if you want to tell somebody something important and that's the only place where no one else will be around.

P: (Another pupil) Could be a closer place.

T: So what is important is that you have to know where the person is coming from.

T: Can you give me an example?

P: If something is bothering you, you should talk about it.

P: If something is scaring you, you should tell people and get it off your mind.

P: Maybe if you get a bad grade and you tell your mother, she can help.

P: I didn't get one part. He shoots Germans and he eats with Germans.

T: Who decides to go to war? Leaders decide, so one individual fights for his country, and one individual fights for another country. When they meet, what might they find? That they like each other, that they have things in common. What happens is that the more he gets around and the more he learns about people, and if they start liking each other they have to fight.

P: What would you do, shoot?

T: War is not clear-cut. Just because a country is at war, individuals may like each other. He's beginning to wonder what are we doing here. Does it help when we talk like we are doing now, asking questions?

P: Yes.

T: When else do we do this? In reading group when we read our stories.

In this particular instance, Ms. Church did in fact explicitly focus on the main idea--that questions and discussion can help one interpret one-way communications--but she failed to model the process. Although the episode ended with a poem that required interpretation to determine the "terrible secret," she chose not to ask questions about or discuss the poem. Instead, after speculating on the secret without reference to any specifics in the episode or in the poem, she asked students to give examples of "how talking about something can make it clearer." Their responses revealed that they were thinking in terms of talking out problems as opposed to inter-

preting written or one-way messages, but she made no attempt to redirect their thinking. When one student finally raised a core question that could in fact begin a discussion that might in turn lead to some interpretation of the "terrible secret," Ms. Church responded not with another question but with a mini-lecture.

This phenomenon of "missing the mark" in ThinkAbout discussions was also pervasive in both earlier and later programs. In Program 5, the discussion on estimation never explicitly focussed on the point that the estimations are different from wild guesses because they're based on knowledge and past experience. In Program 6, the total concept of approximation could not come through clearly in the discussion because Ms. Church herself was unfamiliar with how it was being used. In that particular instance, when she reached the guide question that asked students to explain "why scale models, simulation games, pictures and paintings or recognizable people, places, things, biographies, and maps are approximations," she stopped in confusion and admitted, "I'm not sure we know what approximation is." The children then looked up the word in the dictionary, and the lesson concluded with the definition of "coming close" and the idea of measurement. Two days later, however, Ms. Church recognized, according to the guide, that representations were also considered to be approximations. Program 15 may serve as a final instance, for the discussion that followed the Challenge "Make a Present for the Future" centered on student visits to historical sites as opposed to the complexities involved in designing and interpreting time capsules.

This phenomenon of "missing the mark" has been treated in considerable detail because it appeared to be the most significant

characteristic of the ThinkAbout discussions. In the interest of clarity, however, it should be noted that this treatment does not in any way imply that teachers who follow their own inclinations instead of the directives of the guide are "missing the mark." It is presented instead to capture a situation wherein a teacher who fully intended to "hit" the key points as outlined in the guide consistently and unconsciously failed to do so due to a lack of preparation and a lack of questioning skills.

The practice of following the program and scanning the guide simultaneously frequently caused Ms. Church to pick up only parts of the key idea. Then her inability to pose and sequence appropriate questions and respond to incorrect answers often seemed to block key ideas from coming across. The latter, for example, was strongly evident in Program 12 ("But What Does It Mean?"). The transcript cited above reveals that while she recognized the key point and related it to the value of questions, she could not frame the questions that might enable the students to recognize "the terrible secret" and in turn the usefulness of the questioning process. Her question--"Do you think the terrible secret is that he died or something else?"--gave them no directions to pursue. Possibly a simple sequence such as the following might have been more helpful:

1. How did the pilot feel about war when he first arrived at the battlefront?
2. How did he feel after he had been at the battlefront for some time?
3. How do you account for the difference in feelings?
4. What clues does that give you as to the terrible secret?

Or possibly, instead of asking questions herself, Ms. Church might have gone in this direction:

> The two young girls in the program discovered many things through their questioning and discussing. Let's see if we can figure out the terrible secret by asking some questions about the program or the poem. Who wants to try first?

Or...the possibilities are many, and of course so are the chances that none of these approaches would have been any more successful than the one that Ms. Church actually used. The point here is simply that Ms. Church did not seem to possess a repertoire of questioning strategies and discussion skills to help her hit the particular mark she had in mind.

Ms. Church talked at one point more generally of the difficulties she has experienced in conducting discussions with fifth graders:

> They'll go off in every which way because they want to say whatever strikes their mind. They want to tell their story. But if you take the time to listen, especially in a large group, I find that the other kids start to lose interest and it's all over.

Activities immediately following the programs. After two Tip programs on memory, Ms. Church used activities from the guide, and the resulting experience seemed to be more enjoyable and "on target" than the discussions. Following the first Tip (Program 4), each student seemed thoroughly challenged and interested by the task that asked them to use the techniques of the program to memorize a long list of items. Although the students were reluctant to stop, she finally called a halt after 20 minutes with these summary remarks to the children:

> Let's try to remember these techniques--
> "picturing it" and "grouping."

And to the observer, she added, "I really liked this one, it was good."

Following the second Tip program on memory, the students played a game in which all but one of them took on new names and the one

had to try to remember the new names of the others. After he failed in his first attempt, the children, at Ms. Church's direction, reintroduced themselves with a linking clue, e.g., "I'm Sam and I like sardine sandwiches." With these linking clues, the one (as well as the others) was able to remember. The students seemed genuinely excited with this activity, and the activity itself clearly reinforced one of the major points of the program--"making links or associations helps people remember." Once again Ms. Church gave some closure to the lesson with this statement:

> Remember what the kid in the program said: "It's easier to remember things that you make up yourself."

Thus, the two activity sessions after the program stand in clear contrast to most of the discussions in that there were reinforcement of key ideas, active interest and participation on the part of all, and some degree of closure.

Teacher Follow-up

Ms. Church had at least three different options for follow-up to her ThinkAbout sessions--1) using the ThinkAbout activities in the Weekly Reader, 2) assigning of special tasks and problem-solving situations that involve practice of ThinkAbout skills, and 3) connecting ThinkAbout skills and ideas to the rest of the curriculum. For a variety of reasons, she chose to exercise none of them.

The Weekly Reader. Ms. Church used the Weekly Reader sporadically, and primarily as a vehicle for producing numerical grades for social studies. When the fundamental skills program was adopted, teachers were required to have a percentage grade for each major area, and since Ms. Church had no coherent social studies program, the scores

on the quizzes in the Weekly Reader became the basis of the social studies grade. Ironically, since the ThinkAbout section activities were often open-ended questions and therefore not easily graded, she skipped those. The following field notes from November 13 describe the process:

> Ms. Church asks Peter to read the ThinkAbout section. The section asks questions related to the cover story (which the children haven't read yet). Ms. Church then has the children take turns reading aloud the cover story. Then she says: "Your assignment is to read the rest of the paper and to do the skills page--everything except ThinkAbout."

Special follow-up tasks. Ms. Church did not assign any special follow-up tasks after the ThinkAbout sessions during the observational period. (She did, however, mention in an interview that in the spring she had assigned to the children the task of convincing her to allow them to play kickball in the afternoon after watching a program on persuasion skills.) Neither did she use the Challenge programs as opportunities for creating problem-solving situations and assessing students' skill development. In fact, when asked if she saw the Challenges as a vehicle for practice and assessment of ThinkAbout skills, she responded this way:

> No, I didn't get that idea at all. I got the idea that the Challenge programs were indeed a challenge, and I just didn't feel that they would work for every child. And I did feel the time requirement would be great. The one that comes to mind is about the time capsule--somehow I just couldn't get in tune to it. I know the children would have enjoyed it, I'm not sure if they would have gotten anything out of it, and maybe I did not see the point.

Finally, it should be noted that Ms. Church's teaching and management styles and curriculum did not generate many opportunities for

student decision making and problem solving. As was shown earlier, almost all the assigned work was of the worksheet or workbook variety for which they could get a percentage grade. Ms. Church, at one point, related that practice directly to the back-to-basics thrust and to the fundamental skills program:

> I find I don't have as much time to devote to some of the more creative aspects of teaching or to some of the projects we once did. It's more of a mundane routine type of teaching that's done. We do that because there's no getting around it. Every quarter you have to come up with those grades and you have to have something to base it on. So you tend to do things you can grade easily. Discussions and inquiry projects, you just don't have time for. Holt's a great inquiry curriculum, but you can't grade the activities--it's all teacher evaluation and it's only what you think a child is putting into it.

At another point, she related the lack of projects to a lack of support and appreciation:

> I don't do nearly the things I used to. I'm not as willing to do great big research projects, for instance, and grade them when I know it's going to take so much more of my time to do so. I'm not willing to do some of the things I normally might have done because I know that there is no appreciation for what you do.

Be it back-to-basics thrust, teacher militancy, or some combination of the two, the end result was that there were no planned activities wherein students could work on problem solving skills.

Connecting ThinkAbout skills and ideas to the rest of the curriculum. Although specially planned activities to give children practice in problem solving were nonexistent, numerous natural opportunities for integration of ThinkAbout skills into the daily curriculum were evident. These were, however, not utilized. For example, the week following the

three lessons on estimation and approximation, the children had the task of making their own place-value charts, which involved the cutting of colored paper into 10 equal strips. When several children asked if the strips had to be exact, there was no teacher reference to the question "How close is close enough?"--a major theme of the cluster. Similarly, when the children were confronted with the task of memorizing some map symbols, there was no teacher reference to any of the ThinkAbout memory "tips." The most striking instance of overlooking an opportunity for connection, however, related to assigned reports on Christmas customs. Five minutes after students had watched Program 21 ("Classifying Information"), which dealt with collecting and organizing information into an outline for a school report, Ms. Church held a meeting with the class concerning upcoming holiday activities. During that meeting she assigned an oral report on Christmas customs. She did not, however, mention the program just watched, she did not require an outline, and she did not refer to the previous cluster on collecting information or the two key questions of that cluster, "What do I know?" and "What do I need to know?"

Further, there were overlooked opportunities outside the curriculum as well. In one instance Ms. Church needed a letter written to parents to explain the format of a parent observation day; in another instance Ms. Church needed to make a bulletin board display for Thanksgiving. Instead of involving the children in either problem-solving situation, she chose to do them herself.

Thus, it seems safe to assert that in Ms. Church's classroom students had no opportunities to practice or utilize ThinkAbout skills or ideas.

Instructional Impact on Students: Three Attempts

To describe teacher use of the ThinkAbout series is far easier than to assess its instructional impact on children. Assessment attempts were made, however, in three different directions--interviews with the children, observations of the children, and interviews with Ms. Church.

Interviews with the Children

When students in Ms. Church's classroom were asked in individual interviews in late November to express their overall reaction to ThinkAbout, all responded in relatively positive terms. The most common answers were blanket statements such as, "I like it"; "It's a good show"; "It's a nice program." Several children, however, hinted at variations in quality with comments like these: "Some of the shows are good"; "Most of them are pretty interesting"; "Some of them are worthwhile." Two further qualified their praise by drawing a distinction between home and school video viewing: "In school, it's my favorite program," asserted one. The second developed and repeated the distinction this way:

> It's pretty good for learning stuff, but for a program that I watch at home, I wouldn't want to watch it, but for school, it's pretty good.

Two others, however, indicated that they have in fact chosen to watch it over other daytime television fare at home. One, for example, volunteered this bit of information: "When we were off on Thursday [parent conferences], me and my sister watched it." Another (in response to a question on a particular program) explained, "I was sick that day, but I watched it at home."

When asked to explain why they liked ThinkAbout, Ms. Church's fifth graders displayed more difficulty in verbalizing their thoughts and less agreement. Some did not answer at all and, when pressed, suggested that they simply liked either television in general or television in school. For one of these, television in the classroom is basically "a break like lunch, recess and rest-room time 'cause you're watching, you are not really working or writing--it helps you relax." For those who could state specific reasons related to ThinkAbout, there was some variation. To one girl, the appeal of ThinkAbout is its open-endedness:

> It leaves you hanging from one point to another. They're like mysteries--then they don't tell you the end of the mystery. You have to figure out what is going to happen.

For another, the appeal is its realistic quality. Speaking in comparative terms, she explained that:

> The Metric System is made up mostly of cartoons and you get enough of that at home, and Trade-offs is kind of boring sometimes, but ThinkAbout is real exciting, you know, it's based on something that is really happening.

Still others hinted at variety as the appealing factor: "It's good because it tells you about different opinions," maintained one student. Another preferred it to Trade-offs "because Trade-offs is always like the same thing." For one, the credibility of the youthful actors seemed important: "The kids on there, they know the things that they say." Amidst these various reasons, there was, however, also one common denominator: almost every student at some point in the interview said something to the effect that "it's fun and you can learn from it." Thus, for most, ThinkAbout seemed to represent a blend of

entertainment and education.

A question that asked the students to identify one or more favorite programs provided some additional information about the entertaining aspects of ThinkAbout as well as some initial data on its instructional impact.

Of the eleven students who named favorites, seven mentioned "the one about the UFO," or the "one about the flying saucer" (Program 17). Two selected "the one about the lost puppy" (Program 16), and others mentioned were "the first one about George Washington Carver" (Program 1), "Picture It" (part of Program 3), "the one about the paper route" (part of Program 4), and "the two girls at the skating rink who didn't get the meaning" (part of Program 10). The fact that so many picked programs with a strong narrative and a suspense element (16 and 17) suggests that a story line contributes considerably to the appeal of a particular program. One student, in fact, articulated this notion quite clearly: "I am more interested in the ones that have a little story about it." Another built on that idea by saying that what makes one more interesting than another is the "way that they tell the story--how they tell it--like the flying saucer." (Of course, memory may also have been a factor in the popularity of Programs 16 and 17; they were among the last seen before the interview.)

Of those who did not identify favorite ThinkAbout programs, some maintained they "liked them all." Others, however, clearly revealed a memory problem. In the latter category, seven students named programs that were not part of the ThinkAbout series (five were recognized by the observer as part of the Trade-offs series, and two remain unidentified). Three also described programs that were a mistaken

fusion of two different ThinkAbout segments, and another stated directly, "I get it mixed up with Trade-offs!"

The fact that so many students had difficulties in remembering the programs or distinguishing them from other ITV leads inevitably to the question of instructional impact. When students say, "It's fun to watch and it teaches you things," are they simply saying what they believe adults in the school setting want to hear, or has the series been in fact instructional? If the latter is the case, how may one determine its nature? Two questions in the interview process were specifically included to tap into the students' perception of what learning they took from watching ThinkAbout programs for approximately three months.

Students were directly asked (1) what they thought the series was trying to teach them, and (2) if and how they use ThinkAbout ideas in their classroom work or at home.

In regard to the first one, two said, "I can't remember"; two gave these short and seemingly rote phrases, "remembering and forgetting" and "what you know and what you don't know"; and two students could go no further than these statements, "They tell about different things" and "It gives you a lot of education."

Most, however, seemed t grasp, in a vague way, the overall problem-solving thrust of the series and to believe that it might help them with similar problematic situations. Some conveyed their understanding in highly general terms:

> You learn different things. If you ever get into a situation that they have on TV, well, you know, you can think about what you saw and use some of the ideas they had on TV.

> You learn how to solve some problems--what I know, what I need to know.
>
> If something happens, you should think about it and see what you will come up with.
>
> You learn how to think.
>
> It tells how people make a choice.
>
> It helps you make things better.

Others, however, started to reply in general terms but then quickly focussed on specific situations as examples:

> You learn some lessons, like what to do when you lost your dog or something.
>
> Like they show you what some people do and everything and how you find information, like one of them was about how to plan out information about things like if you see a flying saucer or something like that.
>
> To give you some idea what life is about or whether you see something you don't know about and you have to find out about it--looking up in a catalogue in a library and finding books and going through them, then finding what you want and take notes and just write them down and go to programs if you can find them for your age but try to figure out what the color is and the shape [referring to program featuring the UFO]. What I need for information and what details I need to use for information.
>
> You learn something from them like getting the meaning of the person that says it. Sometimes each one will say something like "picture it," picture where he would be.

One immediately pinpointed a specific skill: "Like when you gather information you have to know what you need to know and what you know," and another in a refreshingly practical statement identified a skill that no one else seemed to consider, that is, listening: "You learn to listen, because when it's over, they will ask you

questions."

The second interview question which dealt with the application of ThinkAbout ideas to other situations was less informative than the first. Most students could not think of any. Those who answered did so by relating a similar problematic situation they had experienced in the past as opposed to a current or future situation that might call for newly acquired ThinkAbout strategies or skills. One, for example, described a family canoeing trip (Program 5), one recounted a search for a lost cat (Program 5), and one talked about losing his mother while at the boat show (Program 3). While these comments clearly serve to validate the realistic nature of the ThinkAbout situations, they do little to reveal the students' ability to apply ThinkAbout approaches to their own problematic situations.

In addition to the answers given to these two formally posed questions, additional information as to student understanding and application of ThinkAbout concepts emerged from some of the probing of student responses to other questions. For example, students were frequently asked to explain the "main point" of different programs, and their answers often revealed a lack of understanding. In at least three instances student replies contained key ThinkAbout concepts used incorrectly. In other instances, their explanations suggested only partial remembrance or a limited understanding. One young man, in response to a question on what he learned from the "one about the UFO," replied, "Not much, except you should keep in touch, go to the library, write down information and keep little cards so you can remember." Another, when asked what he learned about gathering information to solve problems like the UFO or lost

puppy, answered, "You round up a posse and try to find the dog." Some, when pressed, simply gave more details of the narrative. The boy who spoke of the "posse," for example, elaborated this way:

> That is what they said, they get a lot of people and they all--these people go to either north, south, east, or west, and you can make sounds, call the police department, radio stations telling them. . .

Similarly, when asked about what she learned from the UFO program, another answered:

> They wrote notes, they called, and they went to the girl and asked her how her dog was and she said it was kind of acting up.

Others simply could not express any point. Typical of these responses were, "I remember seeing that one, but I don't remember the point"; "I can't remember"; I don't know."

A failure to apply ThinkAbout concepts surfaced in another part of the interview which dealt with changes students would like to see in their classrooms. In the course of their responses, two students identified personal problems--"Keeping my room clean at home" and "Getting into silly little arguments (at school)"--but neither alluded to ThinkAbout approaches for dealing with them. The fact that there was no reference to ThinkAbout strategies in an interview that focussed on ThinkAbout suggests either a lack of inclination or ability to apply these problem-solving strategies to their personal world.

A third student who identified a specific school problem stands out, however, as an exception. Under the questioning and prodding of the interviewer, she eventually identified two ThinkAbout strategies that might help her tackle her problem. The following dialogue captures the problem, the process, and the possible application of

ThinkAbout strategies:

MC: Well, if Ms. Church wanted to change the classrooms and make it a better place to be, what could she do? Do you have any suggestions?

J: Get more books.

MC: Get more books, do you mean, for free reading?

J: Yeah, I have read most of the books she's got.

MC: Oh.

J: Have more recess.

MC: If you need more books and you have read most of them, are there any other things you could do?

J: Well, get books from home, get books from the library.

MC: Do you use the library here very much?

J: No. In my other school last year, we could go down to the library any time we wanted except when the librarian was gone 'cause she had two schools to go to.

MC: So you liked the freedom of being able to go to the library whenever you needed something to read. Have you ever thought of recommending that policy here?

J: Well, I really don't want to hurt their feelings or anything. It would be kinda hard, I really don't like to suggest things. I am afraid that they would think-- I really don't know what they would think. . . .

MC: Well, it seems that maybe if getting to the library is a problem, you might talk about it to some of the other kids, and maybe they feel the same way and maybe you could talk to the librarian about it. There might be some ways.

J: I could, but I don't know if the students should tell the librarian how to run the library.

MC: Oh, you think the students don't really have the right to tell the librarians how to run their library. Well, it might be interesting just to let them know how you feel. I come here and I am really interested in what the students think. Ms. Church wants to know what the students think about the program. The librarian might not realize you know that there are a lot of other students. . . . Can you think of any other ways of finding out maybe if there are a lot of kids that feel the same way you do?

J: Take a survey like they did about the last one about the cafeteria one. Put down criteria or something. Get all in a group and just think about different ideas.

MC: Do you remember in ThinkAbout when they did that? There was one--did you see that program when they were all trying to think about what to do about the paint on the walls? Do you remember what they called the process?

J: (Silence)

MC: Brainstorming?

J: Oh, yeah.

The above dialogue also captures a sense of powerlessness in the school setting for this student. In one sense, the issue seems to be one of simple courtesy: "Well, I really don't want to hurt their feelings." In a more fundamental sense, however, the issue comes through as one of student status and student rights: "I could, but I don't know if the students should tell the librarian how to run the library."

In either case, the student is in effect questioning her own capacity to act on her problems. Two other bits of dialogue with other students seem germane to this sentiment. First, the interchange with David:

MC: Okay, if Ms. Church would say, "David, I need your advice, I would like to improve our classroom, make it a better place to be," what would you say?

D: That's what I hate--when they ask the class. My mom says, "What can I do to make you understand how to clean your room?" What can I do? How am I supposed to know? I'm the kid doing the wrong decision.

MC: But don't you think you have any valuable opinions?

D: I guess so.

Finally, there is the interchange with Kenny:

MC: Can you think of any ways in which you might use brainstorming in the classroom?

K: Oh, when we have a problem about people talking.

MC: Do you think it would be a good idea for the whole class to brainstorm on how to keep the class quiet?

K: Yes.

MC: Why don't you suggest that to Ms. Church?

K: Well, when she hears people talking, she just yells or something.

MC: You don't think she would be interested in brainstorming, right?

K: No.

On the one hand, Kenny may be just realistic about his classroom situation; on the other, he, like David and Judy, may be revealing a sense of powerlessness and a corresponding lack of motivation to become a problem solver. This in turn might affect the meanings some students take from the programs as well as their inclination to make connections to their own world.

Still another kind of index of student understanding of the ThinkAbout concepts emerged when the interviewer probed students who had difficulty remembering favorite programs. When students were asked to remember programs by cluster (i.e., "Giving and Getting Meaning" or "Collecting Information") or by concept (i.e., "estimating," "the bigger picture"), there was little or no response. When, however, students were asked, "Do you remember the one about the canoe race or the one about the boy who ran away from home?" there was usually some degree of recognition ranging from a knowing nod to a faithful retelling of the story or incident involved. This tendency to recall the narrative as opposed to the concept also

manifested itself when students identified their favorite programs and suggests either that the concepts were not salient or that the narrative overshadowed them.

While most of the data from these interview probes seem negative in terms of student understanding and application of key concepts, there were several important exceptions. One young man was able to state the "main point" of Program 1 (on the importance of alternatives) in these general terms--"The easy way isn't always that good"--and then follow through with this more specific explanation: "She was trying to do it the easy way and look it up in the encyclopedia, but you should look up a lot of things." Another extended the idea and implications of searching for alternatives (the same program) in this manner:

> Oh, gee, if great people just like don't bother--like making the airplane, if Orville and the brothers just didn't--when they crashed once, if they said, "We can't do it," that's it, we would not have airplanes. Mr. Bell, if he didn't make the telephone the first time, if he just forgot about it, we wouldn't have the telephone.

And the one student whom Ms. Church had labeled the brightest in the class clearly lived up to his reputation in the way he processed ThinkAbout programs. He could express the main point of not one but several programs accurately and succinctly. Concerning the program about the canoe race, for example, he explained, "Like if I don't know exact things, I can estimate." Similarly, of Program 1 he tersely explained, "One thing can't have all the information." He could also define key terms like "brainstorming" and key ideas like "meaning is more than words." Of the latter idea, he said, "We call somebody up on the phone and just say the same thing, but you could have 30

meanings to it."

But the most noteworthy aspect of his understanding was his ability to see connections between one program and another as well as between the problematic situation on the screen and his own life. The following bit of dialogue that centers on what he learned from the program featuring the UFO captures well his capacity for seeing these relationships:

MC: What did you learn from the program on the UFO?

T: It was kind of like the girl in the library looking for information [Program 1] and the boys—they just didn't get it from books. They went to other places and things and put it together.

MC: If you were making a report, would you try to get a lot of different sources?

T: Usually when I used to do it, I would only use one book, but now since I have seen these TV programs, I try to find as much as I can.

Considering the overall variety and substance of student responses to interview questions and probes, the following initial conclusions seem warranted:

1. All of the children liked ThinkAbout.

2. Most of the children preferred the programs with a story line.

3. Most of the children remembered the story line rather than the underlying concept or skill of the program.

4. Most of the children had a vague understanding of the "main idea" of the series but had difficulty in remembering or expressing the "main idea" of individual programs.

5. The "main idea" most repeated was some form of "What do I know?" and "What do I need to know?"

6. Most of the children, in a verbal situation, lacked the inclination and/or the capacity to link ThinkAbout concepts to their own lives.

Observations of the Children

While the formal interviews were conducted near the close of the case study, there was an informal but continuous search throughout the 2½-month observation period for instances where either student thinking or behavior was influenced by ThinkAbout ideas. The search was in vain.

As cited earlier, there appeared to be a number of classroom opportunities for connections involving the ThinkAbout questions of "How close is close enough?" "What do I know?" and "What do I need to know?" as well as the ideas of using a variety of sources and an outline when collecting and organizing information. The children, however, did not make any clearly observable links. The only possible instance of linkage occurred when, after assigning oral reports on Christmas customs, Ms. Church asked students where they would find their information. Since the students mentioned "public library," "bookmobile," and "school library" in addition to the "encyclopedia," one might speculate that Program 1 (on finding alternatives), which focused on using sources other than the encyclopedia, may have been in their consciousness. That would, however, be purely speculation. The most striking omission involved the same Christmas custom reports. Although the notions of "What do I know?" and "What do I need to know?" were the most repeated ThinkAbout points in the interviews, no one publicly invoked them in relation to collecting information for their reports.

There were, of course, in addition to student observations, many informal conversations, but none suggested that the students were influenced in any way by the series in general or by a particular

program. In fact, the only conversational reference to ThinkAbout occurred when absent students directly reported watching programs at home.

Thus, the student observations and informal conversations seem to corroborate the overall conclusions from the formal student interviews--namely, that although students liked the programs, ThinkAbout problem-solving strategies, ideas, and skills did not immediately find their way into observable student behavior or thinking.

Interviews with Ms. Church

Although Ms. Church frequently remarked during the fall observation period that she thought the ThinkAbout programs were "worthwhile," she was asked directly in an interview in the spring (1) to evaluate the series and (2) to be specific as to what, if anything, she believed that the students were getting from the series. In regard to the first question, she was almost effusive:

> I love the program, my children love the program--I think it's excellent . . . the programs have been consistently good . . . they have a lot of skills that are very basic, they deal with thinking, problem solving and communications, and these are skills that the children are going to need in everyday life.

In answer to the second one, she also spoke in very positive but general terms:

> I think they are developing their reasoning powers and the ability to speak and reason things out and just general thinking skills because they seem to be able to speak out more clearly. Now that could be the result of other things too. But they generally seem to look at things more. I can't pinpoint it exactly, but I just get the feeling they've grown and they can look at an issue more than one way. Now, I'm not saying all of them, but a lot of them look at it more than one

> way now. They do take time to think . . . it's helped give them some perspectives. . . . I can tell just the way they talk, the way they seem to answer better than any class I've ever had. They communicate and find the pitfalls of one another's reasoning and come up with this and that, then they bring it all together.

When pressed for any specific instances where students made any references to ThinkAbout, Ms. Church replied, "I'm sure there were some, but I can't think now." She went on, however, to talk of the one follow-up assignment given late in the year that focussed on techniques of persuasion.

> I know that in the project where I had them convince me to play kickball, they definitely took things right from the program as far as their poster making, presentations, and specially with David interviewing another teacher as part of the way to convince me.

Then, reflecting upon the apparent success of that activity, she suggested that more follow-up projects would have been valuable for students and more directions in the guide would have been valuable to her:

> The activity my kids did after the program on persuasion was fantastic. Probably there are more activities that could be done. It's just a matter of developing them and whether I have the time and the inclination to do that. That's why some series where the guide already does that for us are more useable for me. The ThinkAbout guide needs to have a little more substance to it--it's too vague and general. I think in some respects they tried, but some of the tips and activities were so involved that I really ignored them after a while. I couldn't really use them readily and easily.

Thus, in considerable contrast to the other assessment data, Ms. Church maintained that ThinkAbout had a definite positive instructional impact on her students, particularly in terms of improving

their overall reasoning and communication skills and developing their capacity to see issues from more than one perspective. This judgment was based primarily on the fact that the class that viewed ThinkAbout demonstrated more skill in these areas than any of her previous fifth grade classes. Further, she seemed to be suggesting that follow-up projects would probably increase instructional impact and that a teacher's guide with more explicit projects would in turn result in her assigning more of them.

SUMMARY AND CONCLUSIONS TO CASE 1

What happened when ThinkAbout was used in Ms. Church's classroom? Although the question has a deceptively simple sound, participants and observers of the schooling process know only too well the immumerable complexities involved in fashioning a response. In this particular case, the complexities included a community and a school district with a strong back-to-basics mandate; a school run by an "educational leader" who prizes, above all, order, student achievement based on hard data, and positive public relations with parents; a militant teacher who chooses a passive, paper-pencil teaching style in school and a politically active lifestyle after school. As these different factors and forces interface with one another and with the goals and programs of the ThinkAbout series, a certain picture does in fact begin to emerge. While the pieces are partial in some places, blurry in others, and missing in still others, there are several large ones which come clearly into focus.

The first is that Forest Hills' back-to-basics movement has led in turn to a generalized mastery and molecular approach to learning in the district. In the fundamental skills program, broad concepts and content areas have been broken into discrete skills which are taught and tested in isolation and for which percentage grades can be given.

A second, equally discernible piece is that the principal of Roberts School feels strong pressure both from the central office and from the parents to produce high test scores and to run a tight ship, and he passes along that pressure to his teachers. Each Roberts staff member is held accountable for the way in which her class as a

whole scores on tests, for communicating to parents on a weekly basis through the "Friday folder," and for having an organized and orderly classroom.

A third clear piece of the picture is the various ways in which Ms. Church chooses to respond to that pressure. In order to "cover herself" in terms of her job, she follows her "guides" as if they were step-by-step manuals, generates and grades a lot of paperwork for parents, gives every available pretest, post-test, and review test, and disregards almost any project or activity that is not easily graded. In order to "protect herself" in terms of personal time and energy, she chooses a curriculum that in her view does not require much advance planning, and she handles most of her record keeping during class time. In order to ensure order, she has become the lone classroom authority, manager, and decision maker. The environment created by these responses is clearly one which fosters passivity, unquestioning acceptance, dependence, and the belief that there is a single and unambiguous right answer to every question.

A fourth unmistakable piece is that when ThinkAbout was inserted into Ms. Church's classroom, it functioned primarily as a welcome "break" from, as opposed to a reinforcement of, the ongoing curriculum. In fact, ThinkAbout's emphasis on problem solving and independent learning through a holistic approach often stood in stark contrast and direct conflict to the values and methods that characterized Ms. Church's classroom and Roberts School more generally.

A fifth and final striking piece was that Ms. Church's specific handling of the series did little to facilitate cognitive understanding of the key ideas or provide opportunities for skill development.

The brief introductions were often unheard or ignored, the "discussions" frequently "missed the mark" and were instead a synthesis of the traditional recitation and show-and-tell periods, and special follow-up tasks or instances of integration with the ongoing curriculum were nonexistent.

The picture is, of course, far from complete, but the existing pieces strongly suggest that ThinkAbout was a regular but brief rain shower in a classroom that was a desert in terms of opportunities for thinking, problem solving, and independent learning. For those who have become accustomed to living in the desert, these showers may be savored for whatever relief they bring; for those who are outsiders, they may be viewed as too light, too brief, and too isolated to make any perceptible difference in the climate.

INTRODUCTION TO CASES 2 AND 3

The school district of Lyon Heights is known in county circles for its extensive Central Media Laboratory. Both the lab director and his assistant attended a state ThinkAbout workshop and immediately decided to develop a complete ThinkAbout cassette library and to give their own workshop to encourage usage. The district workshop, run by the assistant to the director, was eventually held in late October. Sample ThinkAbout programs were shown, and general tips for using any kind of media were given (e.g., always give students something to look for).

Of the 12 persons who attended the workshop, only two decided to use ThinkAbout with any degree of regularity—Mr. Bruce Cartwright, a sixth grade social studies teacher at Baker Middle School, and Ms. Lillian Hausman, a library aide at King Elementary School. I observed both.

My visits to Mr. Cartwright's classroom started in November and ended in March, but January and February were the periods of steady observation. During that two-month block, I observed three to five mornings a week from 8:30 until 11:10, and thereby saw Mr. Cartwright handle essentially the same lesson with three different classes. Because the students were scattered in different classrooms before and after social studies, I was unable to follow them into math, science, or reading.

My participation was of a limited nature. I gave students individual assistance when asked, and I helped Mr. Cartwright with classroom logistics (passing out papers, threading the projector, rewinding videocassettes). Occasionally, Mr. Cartwright asked for my reactions to lessons either before or after they were taught.

At the same time that I was observing at Baker Middle School, I began to visit Ms. Hausman's library "classroom" at King Elementary School, where ThinkAbout was viewed every Friday. The two fifth grade teachers would send their students down to the library in two groups, with the first group coming in at 10:00 a.m. and the next at 10:30. My observations were confined primarily to viewing days and to the 10:00-to-11:00 viewing time, but the observation period stretched from late January until mid-May, when the last program was viewed. Periodically, however, I also made visits to the regular classrooms of the fifth graders and spent whole days there. My participation was minimal. During "class" Ms. Hausman occasionally involved me in a ThinkAbout discussion, and after class she frequently sought my suggestions and reactions.

In addition to the extensive observations and limited participation in two different Lyon Heights settings, formal interviews were conducted with the administrators, teachers, and students in both schools and with the director and assistant director of the Central Media Laboratory.

In both settings the research question was, once again, the same: what happened when ThinkAbout was used? In search of answers, the study alternately focussed on a number of different factors—namely, the community and school district of Lyon Heights, Baker Middle School, the social studies classes of Mr. Cartwright, ThinkAbout in Mr. Cartwright's classroom, King Elementary School, and ThinkAbout in the library "classroom" of Ms. Hausman—its use and instructional impact.

THE COMMUNITY AND SCHOOL DISTRICT OF LYON HEIGHTS

Lyon Heights is a relatively small but highly sophisticated suburb on the eastern edge of a large but rather unsophisticated midwestern city. In one resident's view, "It is the only really integrated community and the most cosmopolitan in the entire metropolitan area."

A more diverse community is in fact hard to imagine. Whites, blacks, Orientals and other ethnic groups, university professors, blue-collar workers, highly paid professionals, senior citizens, and college students, for differing reasons, find Lyon Heights an attractive place to live. The college students and senior citizens live mostly in the apartment buildings in the northeastern portion, where there are also a number of small, interesting shops and ethnic restaurants. The blue-collar workers tend to live in small but well-kept homes on the north side, behind a major thoroughfare lined with gas stations, small businesses, and fast-food restaurants. The middle and upper middle class families and professionals live in substantial and, in some cases, luxurious homes in the western and southern sections. For many of these residents the diversity is the most attractive feature of the community; for a few, it is the least.

Lyon Heights has not always been noted for its diversity. As late as the mid-'60's, it was an all-white middle to upper middle class community with a heavy Jewish population and a rather liberal perspective on most political and social issues. The liberal perspective initiated open-housing legislation, which in turn paved the way for a heavy black influx and a considerable amount of white flight. Many whites, however, chose to remain, and among those were the university people who were

committed to the idea of integration, the conservative and orthodox Jews who were committed to their neighborhood synagogues, and the older citizens who were committed to their property. Eventually, but not without considerable difficulties, an almost 50-50 black-white community mix was established and sustained. Now, almost all newcomers to the metropolitan area interested in living in an integrated community head directly toward Lyon Heights.

Prior to the period of integration, it was the school system rather than the diversity of the population that was Lyon Heights' most noteworthy feature. The overwhelming majority of students were academically able, highly motivated, and college-bound, and the school system was nationally noted for its commitment to educational excellence and innovation. Each spring a disproportionately high number of graduating seniors was admitted to the most prestigious universities and colleges in the country. Each election day when there was a tax increase on the ballot for the schools, the already highly taxed residents would vote "yes" once again.

With the influx of black families from the city, the school system naturally suffered through some years of turmoil. Some outstanding veteran teachers simply refused to deal with the lower skills of the incoming black students and quit; others felt sorry for the "disadvantaged" newcomers and completely lowered expectations and standards; still others taught as they always had and experienced enormous frustration. While the elementary schools were relatively quiet, there was racial tension and violence in both the junior and the senior high schools. The federal government responded to the district's struggle with numerous large grants, which generated a steady stream of

alternative curricula, programs, and even schools. The school board responded to the changing population by hiring a host of black teachers and administrators and by reorganizing the district into eight elementary schools (K-5), one middle school (6-7), one junior high (7-8), and one high school (9-12). Because of neighborhood patterns, the elementary schools varied in racial composition from all-black to mixed to predominantly white. The upper schools became predominantly black.

Today, some 15 years later, much of the overt tension and turmoil is gone. In its place there appear to be both an acceptance of the multiracial mix and a desire on the part of each group to go its separate way. From sixth grade to senior year, most social groups are completely segregated, and "mixed" couples are frowned upon by both races. The composition of many upper-level classes also breaks along racial lines, for students, by selecting themselves into certain courses and by being eligible or ineligible for others (i.e., "challenge" or accelerated ones), "track" themselves quite effectively. Educational excellence is still a community value, but now there are sharp disagreements as to how to achieve it. Eighth grade students in Lyon Heights recently scored low on a statewide competency test, and the newly hired superintendent has committed himself to raise the test scores through a return to the "basics." Elementary teachers are being "required" to teach certain curricula and to "cover" certain textbooks, and in at least one building the principal is monitoring progress by periodically asking teachers, "What page are you on?" Some parents (mostly black) clearly support this approach, while others (mostly white) strongly oppose it. Some of the white parents show

their opposition as well as their fear of the predominantly black upper schools by sending their children to private or other public schools after fifth or sixth grade.

As a result of the superintendent's directives and policies on test scores, some building administrators now speak of a loss of autonomy, and some teachers talk of a loss of creativity. In one principal's view, "We can't have fun with the kids any more because there is so much pressure related to test scores."

Throughout the transitional years of integration and the current resurgence of the textbook approach to teaching and learning, one surprising and noteworthy mainstay has been the district's Central Media Lab. Under the leadership of a dynamic and forward-thinking media specialist, the lab has steadily grown and now boasts over 600 films, 1,000 videocassettes, and 2,000 audiocassettes. Teachers new to the district are systematically exposed to the lab's resources and trained in strategies for using media effectively, and all teachers are encouraged to use the lab to make their own transparencies and special slide shows. The lab periodically publishes thematic booklets (e.g., women, ecology, cowboys and Indians) with recommended media resources, holds workshops, makes and delivers videocassettes for classroom teachers, and works closely with the librarian in each of the district's schools. Two Lyon Heights schools that make particularly good use of these media resources are Baker Middle School and King Elementary.

BAKER MIDDLE SCHOOL

Baker Middle School is a relatively recent development in the Lyon Heights School District which utilizes two old buildings in the western part of the community--a former elementary school and a former junior high. The two old brick and grey stone buildings sit directly across the street from one another in the midst of one of the community's more affluent residential neighborhoods, and several times a day lively sixth and seventh graders stream across a blocked-off section of the street on their way to classes or the cafeteria. (On wintry days there are also likely to be streams of snowballs sailing back and forth between the two buildings.)

The former junior high serves as the "main" building and the elementary school is the "annex," but both buildings have separate offices, administrators, and secretaries. Occasional reproductions of African art and bulletin boards of student art break up the drabness of the long corridors of lockers in both buildings, but the general lack of attention to decor suggests that teacher and administrative effort goes in other directions. When "the bell" rings and countless numbers of active adolescents surge into the halls, it appears that most adult effort is probably aimed at getting and keeping the attention of this vibrant, mostly black group of young people. Their energy seems to explode in every direction as they shove, shout, strut, and sing their way through the buildings. In contrast to the raucous and mostly good-natured banter and activity of the blacks, the white students appear passive and quiet as they congregate in their small cliques.

The faculty of Baker is mixed--black and white, male and female, young and old--but individuals seem to mix very little with one another

socially. The lounges in both buildings are relatively unattractive, uncomfortable, and unused. Teachers in the main building often briefly talk over lunch in the teachers' dining room, but teachers in the annex tend to eat a lunch brought from home in their own rooms rather than congregate in their own lounge or walk across the street.

The academic program is departmentalized and most students have a different teacher for each subject. In prior years, the faculty worked in two-person teams with each teaching three subjects. This arrangement was, however, recently altered as part of the district's effort to raise reading and math test scores. Administrators reasoned that teachers who taught only math or reading could do it more effectively, and so now students move among four or five different teachers. Some teachers are dissatisfied with this new arrangement. As one put it:

> The vast majority of the kids—particularly the sixth graders—aren't able to handle that many changes, that much moving around, that many personalities to deal with, that much work. And so this year, because we have less contact with kids, we have less control. As a classroom teacher with less control over the kids, we're not able to do as much with them, not able to get to know them on a personal level as much, and I think it's detrimental to their education.

Control is indeed the watchword of Baker, and the principal who was hired several years ago to "turn things around" appears to have achieved it. In addition to a counselor who works with disruptive students in each building, the principal supervises student behavior in the main building while the assistant principal supervises in the annex. With so much supervision given to the control of the students, very little is given to the teachers. According to one teacher:

> I've been in this building three years, and the principal has never come into my room just to see

> what I've been doing, even though I've had special events going on. The only time we've had an administrator in is during evaluation time, and that was an administrator [from Central Office] who had no idea who I was, what I was doing, and didn't even know exactly what subjects I was teaching. He came in for 15-20 minutes, evaluated me, and that was all.

When teachers do interact with principals at Baker it is "mostly on a discipline level. It is mostly when you as a teacher send students to the office and you want to find out what happened to them." Department chairmen are "supposed to" offer leadership in instruction and curriculum, but according to another teacher, "That never really happens." Thus, while teachers get considerable administrative support in terms of discipline and control, they operate in terms of instruction as rather autonomous individuals within the confines of the district curriculum.

THE SOCIAL STUDIES CLASSES OF MR. CARTWRIGHT

Mr. Cartwright

One of the sixth grade teachers at Baker who puts his individual stamp on the teaching of social studies and science is Mr. Bruce Cartwright. Although he now labels the profession of teaching as "stimulating," "exciting," and "rewarding," his decision to become a teacher was neither a casual nor a quick one. It came after the completion of his A.B. degree (in psychology and sociology), after several years of travel, and after a year of "odd" jobs. Once the decision was reached, however, he accumulated a variety of educational experiences in a relatively short time. He completed his elementary certification requirements within a year and for the past six years has taught in three different schools and at almost every elementary grade level.

Regardless of subject matter or grade level, Mr. Cartwright is committed to teaching "thinking skills" and "values clarification" to young people. As he puts it:

> The most important and hardest aspect of my job is teaching the kids to think on their own. That's what I see as the whole crux of what I'm doing. It's not so much teaching the kids subject matter, it's just developing them into self-actualizing, thinking citizens who are able to handle themselves.

Although he views the whole developmental process as "fascinating," he particularly enjoys the sixth grade because "you are contributing to the students' transition from childhood to adolescence."

While Mr. Cartwright has a number of diverse outside interests—motorcycles, tai chi, African dance, and travel—during the school year he concentrates almost all of his time and energy on classroom

preparation. Pulling on a variety of sources and his own creativity (which is considerable), he develops unique lessons in great detail and then internalizes them so completely that he never uses a note. He purposely avoids school politics and teacher organizations because he "would rather put the time into developing a curriculum and teaching," and the extraordinary amount of time given to planning seems to be appreciated by his students. For most of them, Mr. Cartwright is their favorite teacher.

The Social Studies Classes

From 8:30 to 11:10 each weekday morning, Mr. Cartwright teaches three sixth grade social studies classes in a row. Although the overall curriculum is the same for each, there is some variation in the lessons for second period because it is "slower, less motivated, and harder to control."

The curriculum is a series of large units which incorporate both district expectations and Mr. Cartwright's personal beliefs, and this year, from January to June, the units were: communication (and the history of languages), longitude and latitude, religion, and the establishment of communities. Mr. Cartwright is quite comfortable with the substance of this lineup and feels considerable freedom to internally develop these units in any number of ways. While the seventh grade social studies teachers are "required" to correlate their curriculum with the state's eighth grade competency test, he and the other sixth grade teachers have thus far escaped such outside domination and pressure.

Although the first-period class always begins with a five-minute "sharing" time, there are few regularities within individual sessions.

Each day's activities vary according to the substance and flow of the unit, but some notion of the nature of that variety as well as the overall teaching-learning process in Mr. Cartwright's classroom can be gleaned from a consideration of one particular unit, the unit on communication (see Table 1).

The Communication Unit as Exemplar

In addition to conveying the substance and process of one particular unit, Table 1 suggests a number of more general facets of Mr. Cartwright's classroom. The first and perhaps most obvious is that students are encouraged and expected to "think" in his classroom. To begin with, the unit itself was built around some rather complex and provocative questions--"What makes man human?" "What characteristics do all humans have in common?" "What causes problems in communication?" Further, many of the specific in-class and homework activities engaged the students in high-level thinking. For example, activities which asked students to determine what distinguishes man from other animals, to delineate the characteristics that Eskimos share with all humans, to compare Eskimo culture with their own, to identify behavior patterns in oneself and others, and to analyze their families' communication problems involved the capacity to generate data, to interpret and analyze data, and to draw conclusions. The "Road Game," in which students had to imagine themselves as foreign countrymen engaged in a competitive struggle for valuable resources, and the design of a poster that would symbolize their classroom environment tapped into the students' ability to think divergently, to synthesize, and to create. Homework assignments which required them to use newly acquired concepts like "patterns" and "communication" to describe and analyze behavior

Table 1

Unit on Communication (and the History of Languages)

Session	Subject	Classroom Activities	Homework Assignment
#1, #2	What Makes Man Human?	1) Brainstorm in large groups. 2) Closer examination of lists in small groups. 3) Reconvene in large groups for conclusions. 4) Read from text.	
#3	What Do All Humans Have in Common?	View film on Netsilik Eskimos and "List things the Eskimos did that all other humans do."	Following worksheet on "Human Characteristics: A Home Study": 1) List 5-12 characteristics of the Netsilik in a column. 2) Record and list who, where, and how people in your family did same things as the Netsilik did. 3) Write in a few sentences any conclusions you draw from comparing these two cultures.
#4	Patterns of Human Behavior	ThinkAbout program "People Patterns"	Identify and record "behavior" patterns of teachers, friends, relatives, yourself. Identify and record "place" patterns that occur at school, at home, a place of your choice.
#5	The Communication Process	ThinkAbout program "What Is the Meaning?"	

(continued)

Table 1 (continued)

ession	Subject	Classroom Activities	Homework Assignment
6	Methods of Communication	Mid-unit review--Images & Things (videocassette)	"Communication in Your Family: Who Communicates with Whom? (worksheet). Observe, record, analyze, and describe communication patterns in your family.
7	Communication through Signs and Symbols	View videocassette on "Signs and Symbols" (Images & Things). In small groups, draw a poster (using signs and symbols) that characterizes the environment of this class.	
8, #9	History of Languages	Using text and worksheets, read and answer questions.	
10	How Countries Communicate	Discussion and charting of how U.S. and Iran are communicating over hostages and how U.S. and Soviet Union are communicating over Afghanistan.	
11	Communication without Words	ThinkAbout program "Communication Patterns" and film Mime over Matter	Communication unit evaluation: Using class notes, students are to write what they've learned about each of the five areas: humanness, patterns, communication process, methods of communication, and development of languages.

(continued)

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Table 1 (continued)

ession	Subject	Classroom Activities	Homework Assignment
12, #13	Animal Communication	Two films on dolphins	
14	How the Deaf Communicate	Guest speaker: deaf man who teaches students some sign language (Ames-lan)	
15	Animal and Deaf Communication	Choice of two videocassettes: "Be-yond the Silence Barrier" or "The First Signs of Washoe."	
16, #17	What Causes Problems in Communi-cation?	"Road Game": Four governments have different valuable resources. Ambassadors for each negotiate with each other to build roads to gain access to more resources.	
18	Factors Affecting Human Communi-cation	ThinkAbout program "Meaning Is More Than Words"	
19	"Road Game" Critique	Viewing videotapes of "Road Game" to analyze student behavior.	

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in non-school settings tested their ability to apply classroom ideas to their own world. And the final written assignment to communicate what they had learned required them to evaluate and make judgments. Thus, although there was no indication that Mr. Cartwright consciously attended to Bloom's Taxonomy of educational objectives (1956), there is also no question that this unit encouraged students to think on Bloom's "higher levels."

The intellectually challenging questions and activities of the communication unit permeated other units as well, and no matter what the unit, Mr. Cartwright consistently pressed students to think broadly and deeply. In all teacher-led discussions, comments like "You've got a good idea—keep going, think it through," "C'mon, follow that idea up," "You can figure it out—this is not above you" were commonplace. Moreover, he continually phrased questions that were open-ended and then encouraged students to take a chance because there were no right or wrong answers. The unit evaluation is a case in point, for he introduced it by announcing, "There are no right or wrong answers, I'm not asking you for facts, just communicate to me what you have learned."

A second characteristic that comes through the communication unit is that students were actively involved in the teaching-learning process. Brainstorming in large groups, discussing in small groups, designing posters, role playing, or learning sign language, students were clearly learning by doing, and that was consistently the case in Mr. Cartwright's classroom. Even while watching films, filmstrips or videocassettes, students usually had a task ("While viewing the film on traditional Netsilik Eskimo life, list things that all other humans

do also"; "As you view and discuss the filmstrip Using the Globe, make note of and list the following: five important facts about latitude, five important facts about longitude, three important things about time and the globe, three important things about great circles"). While these media tasks were partially related to keeping the students' attention, they also served to give them an active role while viewing.

In addition to promoting learning by doing, Mr. Cartwright also stressed the idea that students can learn independently and from peers. A segment of the initial session of the communication unit typifies his approach. He first asked his classes as a whole to brainstorm a list of things only humans do. After the students had generated a long list of both correct and incorrect items, he divided them into smaller groups and asked them to examine the list more carefully to decide which in fact only humans do. When one student in the second-period class tried to get him to give an answer, he responded this way:

> We're trying to figure it out—we are going to figure it out together. You are all teachers—you have 12 years' experience, but you have had different experiences. If you pull your resources, you can probably figure it out. Mrs. [illegible]hn and I will be like you—resources.

After the students had reconvened as a class and drawn some conclusions, he reinforced the idea this way: "This was a good discussion, and I want you to remember that you learned from one another."

Remarks like these were frequent and seemed to convey to students that they as well as the teacher could be a source of knowledge. Opportunities for student decision making also seemed to suggest that students had some control over their learning. For example, on one occasion when Mr. Cartwright was confronted with a genuine teaching dilemma--two equally worthwhile television shows and not enough time

for both--he involved the students in the choice. One class had the dilemma presented this way:

> I want to let you make some decisions as to what we will be doing for the next two days. I have two good TV shows, and both are an hour long. (You know our class periods are only 45 minutes.) One is called "Across the Silence Barrier"; it is about deaf people and how they learn to communicate. The other is called "The First Signs of Washoe." Washoe is a chimp who was taught sign language. I want you to think about what options you have, what combinations are possible.

Initially, there were suggestions to 1) flip a coin, 2) watch each for about 15 or 20 minutes each day, 3) watch 45 minutes of one each day. Then after Mr. Cartwright asked, "Are there any other possibilities?" some suggested voting on one whole show for both days. That option was in fact selected, and "The First Signs of Washoe" was the winner.

On one occasion, Mr. Cartwright even dramatically demonstrated that there were alternatives to teacher-directed lessons by putting this message on the board before the class entered:

> I'm not starting the class today. Instructions are on the board. I'm not going to communicate much today.
>
> I. Discussions or explanations of weekend work assignment. Any questions should be directed to Mr. C.
>
> II. Whenever the class (or majority thereof) is quiet, the TV set will come on and you may watch the program "Signs and Symbols."
>
> III. After the enjoyable show, you and your friends design and draw a poster that would symbolize the environment of social studies class. (How can you show others what goes on in here?)

A third characteristic that is suggested by the communication unit is Mr. Cartwright's commitment to relating the part to the whole,

or in ThinkAbout terms, giving the "bigger picture." Each lesson of the unit was purposely planned and sequenced to develop and extend understanding of the communication process as a whole, and the way in which the various pieces fit together was made explicit to students on a number of occasions and in a number of ways.

On January 10 (session 6), for example, Mr. Cartwright began what was essentially a "mid-unit review" by drawing six large boxes on the chalkboard. Next he explained:

> What these boxes represent are the different lessons we've had on communication. When a unit is so long, one tends to forget the whole and just see the individual lessons, so today we want to go back and see how one builds upon another.

For the next 20 minutes, primarily through a questioning process, he worked toward filling the boxes (see Figure 1).

On many other occasions, his attempts to make connections were briefer and more casual—just a few sentences to link where they had been to where they were going:

> What we've been trying to do the last two days is to answer the question "What makes human beings human?" We've done a good job, but it's hard to answer. Today we are going for a bigger question—"What do humans have in common?"

And sometimes the links Mr. Cartwright forged were not among individual lessons within the unit but between the unit itself and the larger whole of the student's daily life. The concept of patterns, for example, was shown to be a useful tool for describing and analyzing the behavior of one's family, friends, and self, and the concept of communication was found to be a vehicle for understanding the ways in which different countries relate to one another.

Connections of these varying kinds were not, however, peculiar

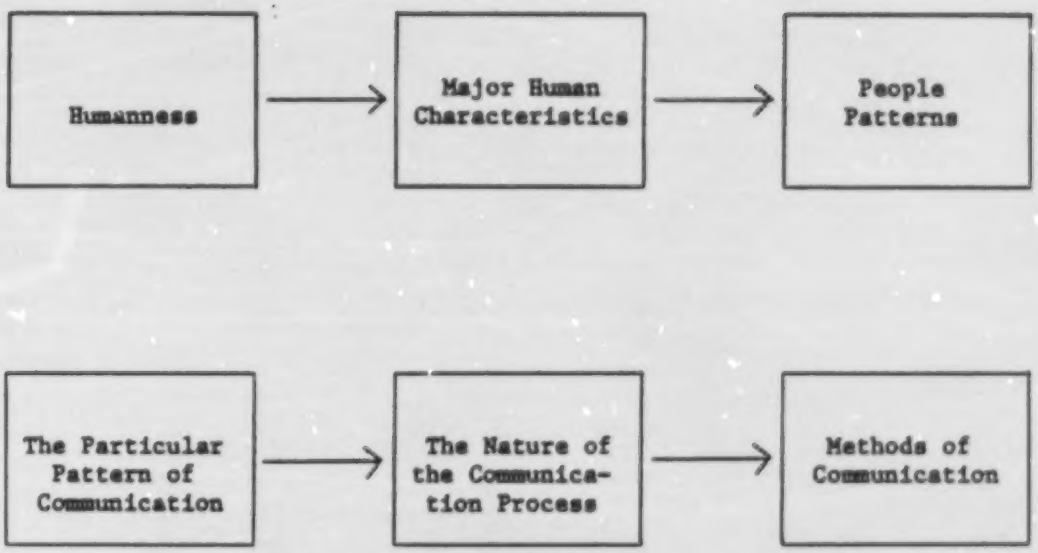

Figure 1. "Mid-unit review" on communication.

to the communication unit. They were instead an integral part of Mr. Cartwright's teaching style, and their frequency seemed to keep at the forefront the rationale behind sixth grade social studies.

A fourth feature of Mr. Cartwright's classroom that clearly surfaces from the communication unit is the central role of media. During the month-long unit, eight videocassettes and four films were shown, and according to the district's media lab, Mr. Cartwright consistently uses that amount. While Figure 1 reveals heavy usage, it does not, however, reveal the manner in which media are handled.

To begin with, each media presentation is introduced with a viewing task. The following are typical of the range of specificity:

> Today's program will give many ideas on how people communicate. Look for 8 to 10 different methods.
>
> As you watch the TV show on Washoe, take notes on how he learns to read sign language.
>
> As you watch the film on the dolphins, look for and write down the answer to these four questions:
> 1) What is the evidence for high intelligence in dolphins?
> 2) What systems of communication do they have?
> 3) What advantages does that give them over other sea life?
> 4) Do dolphins have a language?

During films or videocassettes, Mr. Cartwright frequently stops the presentation and asks questions to make or emphasize a point, or to build interest. The following are representative:

> How does the picture make you feel?
> What do you think it means?
> What do you think will happen next?

After the viewing, students were generally held responsible for the information and ideas in the presentation. On the written communication evaluation, for example, three of the five essay questions asked students to use TV programs and films as sources.

This systematic approach suggests that Mr. Cartwright saw media as an effective teaching tool. The following dialogue from an introduction to a lesson on study and research skills suggests that the students saw media as a teaching tool as well:

> Mr. Cartwright: Take out a piece of paper and write down five things you've learned this year. (Pause) Now on the board I've put four different sources from which you might have learned these things:
>
> Books (B)
> Teacher (T)
> Experiences (E)
> Research Report (RR).
>
> Now, put down the source after the item learned. It could also be a combination, like BT.
>
> Student: What about films?

The fact that Mr. Cartwright had not cited films or TV as a learning source was both interesting and surprising. The fact that someone in all <u>three</u> classes asked about films or TV seemed truly amazing.

There are of course several components of Mr. Cartwright's classroom that cannot be seen through the communication unit, or any academic unit of work. Among these are his tendency to teach "the whole child" and his approach to classroom management.

<u>Teaching the Whole Child</u>

Ann and Harold Berlak, in their soon-to-be-published book <u>The dilemmas of schooling: Literacy and social change</u>, maintain that all teachers face a dilemma which can be labeled "whole child versus child as student." In their view:

> The whole child emphasis is towards assuming greater responsibility for the children's aesthetic, intellectual, physical, social-emotional, and moral development. The child as student pull is toward taking responsibility for children's learning of a narrow range of school subjects—focusing primarily on intellectual cognitive development.

Mr. Cartwright's actions clearly pointed toward a personal resolution to this dilemma in terms of the whole child. Group sharing times, conversations with individuals on social, cultural, and family matters before, during, and after class, lessons and films on values clarification, and sessions devoted to the improvement of group processes were an explicit and significant part of his curriculum.

In fact, he turned the finale of the communication unit--the "Road Game"--into a mechanism to confront a specific classroom social problem. The difficulty developed every time Mr. Cartwright asked students to break up into small work-discussion groups of his choosing (he believes in mixing the brighter and slower students). Large numbers (mainly from the second-period class), angered at being separated from friends, would show their feelings by slamming their books, loudly scooting their chairs, muttering or shouting unkind remarks ("I don't want nothin' to do with them"). In order to deal with the problem, he first arranged to have someone videotape the "Road Game" and then he alerted the "cameraman" to cover, in all three classes, one particular aspect of the game in which he arbitrarily assigned people to small groups. Afterward, he allowed each class to see and process the videotapes of the game from all three classes, and he asked students to specifically watch their own behavior when assigned to work with classmates not of their choosing and to "contrast" it with the behavior in other classes.

His immediate aim was to make classroom management somewhat smoother, but his long-range goal was to help students learn how to adapt more easily to different and changing social arrangements.

Classroom Management

Most of Mr. Cartwright's social studies students put the social aspect of their lives far above their studies, and Mr. Cartwright often appeared to be an entertainer as well as a teacher as he struggled to capture and keep the attention of his audience. In addition to appearing each morning with a well-rehearsed and interesting script, he displayed considerable showmanship as he strode briskly around the room, spoke in a crisply paced and animated manner, cracked jokes, and used examples that related directly to the lives of his students. There was nonetheless invariably some degree of inattention and disruptive behavior, particularly in the second-period class. Whenever he paused to listen to a soft-spoken student or answer an individual question, turned to write something on the chalkboard or adjust the projector, stopped to pass out some papers or answer someone on the public address system, most of the students would immediately begin to talk, giggle, joke or even fight with one another. It often seemed as if Mr. Cartwright's class was a completely undesired interruption of their school social life, and any pause in the proceedings was a legitimate signal to carry on as before.

Mr. Cartwright dealt with these disruptions in a series of graduated steps. At first he would fence back and forth with the disrupters, trying to kid them back into attention. If that behavior failed, he would stop and clearly express his anger. If the disruptions continued past that point, the next move would depend upon the number of key disrupters. If there were only a few, he would ask them to leave class. If there were many, he would stop class, either for a short time or for the rest of the period. Sometimes these stoppages seemed quite

effective; sometimes they were not. One of the most effective instances occurred just as he was about to turn on the movie projector for the film Mime over Matter. As the noise level rose, he simply stopped, sat down, and started reading a pamphlet. Some of the students started asking the others to quiet down, and after a few moments he looked up blankly and asked, "Are you waiting for something?" When there was a chorus of "You"s, he asked in a calm voice, "How do you like waiting for me?" After someone responded, "Not too good," he effectively made his point: "Well, I don't like having to wait for you either."

On another, less effective occasion, he stopped class completely and sat down at his desk. When he ignored several requests for him to continue, a few of the more serious students went to his desk for individual assistance. The majority, however, displayed anger and hostility as well as continued noisy behavior, with one labeling him as "immature," another calling him "irresponsible," and still another expressing her feelings this way: "He's acting like one of us and he's supposed to be the teacher."

Sixth graders at Baker are a lively, restless and sometimes wild bunch with numerous nonacademic agenda to cover, and each teacher must develop his own means of keeping them corralled and attentive during those 45-minute class periods. Mr. Cartwright seems to have chosen a challenging multifaceted approach with his social studies classes—thought-provoking lessons which link to one another and to the rest of the student's world, active student involvement, media, attention to the "whole" child, an enthusiastic and dynamic manner, and—when these failed—a graduated series of disciplinary moves. While this

strategy was for the most part unmistakably successful, the amount of time and talent it took to accomplish were also undeniably great.

THINKABOUT IN MR. CARTWRIGHT'S SOCIAL STUDIES CLASSES

Classroom Use

Given Mr. Cartwright's commitment to the development of thinking skills and the use of media as a teaching tool, there was nothing unusual about his decision to incorporate ThinkAbout into his social studies curriculum. At times, however, the particular manner in which he chose to do so seemed quite unusual.

Viewing Patterns

Rather than view the ThinkAbout series sequentially and in its entirety, Mr. Cartwright, from the outset, decidod to select from the Central Media Lab's library of cassettes only those programs which directly related to his students' needs. His initial intention was to use selected programs each Friday in all three social studies classes for an extended but undetermined period of time "as a change of pace for the students and for myself." Over the course of the year, Mr. Cartwright held tightly to the notion of selectivity but altered his definition of students' needs and his weekly schedule. The resulting viewing schedule and the rationale behind it can best be seen by segmenting the overall viewing period into three parts--November and December, (2) January, and (3) February and March.

November and December. During the first two months of viewing, Mr. Cartwright defined "students' needs" in terms of general thinking and study skills for improved academic performance. Toward that end he selected four programs--"Why Bother?" "Blockbuasting," "You Can Remember," and "What Do I Know?" In each case they were shown on Fridays, and while there were always connections to ongoing or previous

classroom work (i.e., "these memory tips can help you remember lists and facts from this class and science"), they were in essence a separate problem-solving strand. The fact that there were only four, however, reveals that from the beginning, Mr. Cartwright did not, as originally intended, view programs weekly. When his ongoing academic unit required a Friday session, it always took precedence over ThinkAbout.

January. In January, during the communication unit, Mr. Cartwright's approach to ThinkAbout clearly changed. After looking through the guide and discovering programs directly related to the unit at hand, he reconceptualized "student needs" in terms of comprehension of the unit goals. When his focus was on human characteristics, "People Patterns" was viewed. When his focus moved more specifically to the communication process, he found "What's the Meaning?" "Communication Patterns," and "Meaning Is More Than Words" relevant. Rather than being relegated to the Friday format, these programs were interspersed wherever sequentially appropriate, among a variety of other classroom activities and media, and students were held responsible for them on the unit evaluation (i.e., "From TV shows and your home observations, what have you learned about patterns of behavior and patterns of communication?"; "From TV shows, classroom discussion and home observation, what have you learned about the important things needed for any communication?"). Throughout this month, since the emphasis was clearly on the content of the programs as opposed to their problem-solving potential, ThinkAbout became an integral part of a larger whole, the communication unit.

February and March. During the next two months ThinkAbout was once again back to its original Friday schedule and its original emphasis on

general thinking and study skills. The selections in this period were "Ways To Remember," "Estimating," "Where Should I Go?" and "Classifying Information." "Stereotyping People" was a fifth choice and an exception in that it was picked as a "lead-in" to the unit on religion. Once again the intended weekly schedule was preempted by ongoing unit lessons.

After spring vacation Mr. Cartwright chose to use the remaining available Fridays for values clarification activities. He explained his choice this way:

> In the past years I've always gone very heavily on values clarification activities through films mostly, so they could analyze their reactions themselves and get more of an idea of what they're doing. I've felt a lack of that this year. I felt that it was an important part of the kids' development that I wasn't exposing them to this year because I was opting for ThinkAbout, which was gearing more to the thinking skills. So once I stopped doing the units where I could really incorporate ThinkAbout and it was getting toward the end of the year, I felt a need to stress more of the values, to give those kids some of those films and activities.

Thus, Mr. Cartwright's classes saw a total of 13 programs in a five-month period. During four of the five months, ThinkAbout was a separate problem-solving curricular strand wherein students, on a bimonthly basis, watched programs selected to develop their study and thinking skills. In the month of January they saw four programs which were completely integrated into their communication unit and which were selected for their content rather than for their problem-solving thrust.

Teacher Preparation

In Mr. Cartwright's view, ThinkAbout requires considerable teacher preparation:

> I think it's essential in the ThinkAbout series that the teacher have a lot of input into it and a lot of preparation for it, especially in follow-up, because it is, as I see it, more entertaining for the kids. If the teacher doesn't pull out the facets of the program that he wants to be taught or covered and specifically work with those, it's not going to bring it back to the consciousness of the students.

And although he did not preview the programs because of time constraints, Mr. Cartwright prepared extensively for each ThinkAbout session. First he carefully read the summaries in the teacher's guide to select the program to view and then he read the "Before" and "After" suggestions of his selection. The latter, however, were not very useful to him. As he explained it:

> The manual is, in my opinion, one drawback of the development of the series up to this point. I read the activities that they have suggested for the teacher to see if they would help me, if I could plug them into what I wanted to do. I found them wanting, because they were really abstract and general and you needed a lot of time and work to pull them off. They weren't realistic to use with kids in a classroom. They were rather weak suggestions, and it was really general. It was almost as if the writers of the manual said, "Well, we need to have pre- and post-activities, so let's draw up something really general. Let's say, look up things in a telephone book and have the kids make up a list." And as a teacher you need more specific suggestions, and the kids need more specific activities, especially coming out of ThinkAbout shows. Two other manuals that are much better are Self Incorporated and Inside/Out, especially Self Incorporated. Their suggestions for activities, I think, are excellent because they give a number of different types of activities that cover different levels and different aspects of their shows.

The third and final step was the creation of his own "before" and "after" activities which, from an observer's perspective, also took "a lot of time and work to pull off."

Before the Program

The pre-program activities that Mr. Cartwright invariably prepared for students varied considerably in format; there were, however, some commonalities as well. A look at the "lead-ins" to three of the programs--"Ways To Remember," "People Patterns," and "What Is the Meaning?"--reveals both the variety and the core elements.

Before "Ways To Remember". The introduction to the first memory tip was actually a five-step procedure. First, students were asked if they could remember the exact number of hostages released from Iran (they couldn't). Next, the students were asked if they could remember five telephone numbers (they could) and how they memorized them (mostly from using them). Third, students were given the following set of directions to remember until the end of the class period:

> The person that I will call on at the end of the period, I want them to get out of their seat and come up here to the front of the classroom. From here I want them to go over to the shade, pull down that yellow shade, continue on to the back of the room and knock on the piano three times and then two times. It will be like a code—one, two, three, one, two. Then you will come up to the front of the room and you will have a piece of paper on the TV set here; take this piece of paper and put it on the chalk lying here, like that. You may have to hold it in order to get it there. Then I want you to turn on the cold water faucet, come back out to the middle of the room, turn around once and then go back to your desk again. OK, no more for now, forget about that for a while.

Fourth, students were given a choice of six lists of 10 items each to memorize in three minutes (some could and some could not). Fifth and finally, there was this rationale and introduction to the specifics of the program:

> Okay, now what we are going to do is see a TV program that is going to give you some advice on how to

> remember things. As most of you are aware of and have been aware of for the last five and a half years, teachers in your class often require you to memorize lists and to memorize an awful lot of things. So this TV show should be helpful to you on how to remember things, not just in the classroom but in your jobs. The story is about two people. One is a young boy, sixth or seventh grade, and he has just gotten a job on a newspaper route and he is on a trial period. That means he has one week to learn the newspaper route, and if he doesn't learn it quickly, he doesn't get the job. He tries to memorize that route by using a particular technique. Now the other person is a policewoman. She is just new on the job also and she uses another technique to remember things to do her job well. All we are going to do is simply watch the program and then we can do some more experiments afterwards and see what you have picked up from the program on tips on memorizing.

Before "People Patterns." Mr. Cartwright began by announcing the need for five volunteers, and when they came forward, he handed each a marker and directed them toward a large yellow piece of paper that was covering the chalkboard. The first four were told to draw a triangle, and the fifth was told to draw a circle. Then he called for five more volunteers, to whom he gave the same tasks, and then five more. After the yellow paper looked like this—△△△△○, △△△△○, △△△△○—the dialogue went this way:

Mr. Cartwright: If we were to fill up the whole sheet, what would we be doing?

Student: Repeating the pattern.

Mr. Cartwright: What is the pattern?

Student: Four triangles and a circle.

Mr. Cartwright: You can tell it's a pattern because it always repeats itself. Does the different color of some of the triangles make a difference?

Student: No.

Mr. Cartwright: This is a lead-in to today's lesson, which has something to do with patterns. Can you give me a definition of patterns?

Student: Something you follow.

Mr. Cartwright: What would be an example?

Student: Football patterns.

Mr. Cartwright: Okay. (He draws some football diagrams on board.)

Student: A series of steps like you follow to figure out a murder.

Mr. Cartwright: Okay. What we are going to do now is to follow a pattern on a ThinkAbout show that has to do with behavioral patterns. What are behavioral patterns?

Student: How people behave.

Mr. Cartwright: Right. The diagram on the board deals with physical characteristics, but this program is about behavior. This idea of patterns is important in life. I haven't forgotten the homework; it will tie in. (On board he writes, "pattern = something you follow--something that repeats itself.")

Before "What's the Meaning?" After a five-minute review of the past few days ended with the statement "When things or people communicate, they have to exchange some ideas," Mr. Cartwright explained that he and the Baker counselor, Ms. Railsway, were going to have a discussion in the middle of the floor. He instructed the students to gather around them, listen and observe closely, and write down "patterns" that developed during the discussion. He and Ms. Railsway then discussed the topic of student homework, with Mr. Cartwright in favor of more and Ms. Railsway in favor of less. In the course of the discussion, neither listened to each other, both talked past each other with irrelevant details, each interrupted the other, and both talked at the same time. Basically, however, Mr. Cart-

wright repeated over and over again that he intended to give more homework because all the students were doing at home was watching TV, while Ms. Railsway kept repeating, "You're wrong, Mr. Cartwright, you're wrong. The children need to watch TV."

After the students gave their observations--"rudeness," "interrupting," "repeating," "talking at the same time"--Mr. Cartwright explained:

> Now, that is a prime example of miscommunication--when two people do not communicate--and the show we are going to see is dealing with what is involved with proper communication. Also, it will give you some examples when people get their ideas or messages mixed up and get disappointed. How many of you ever thought that the teacher or parent or somebody said that you were going to be able to do something and you got all excited about it and you got all dressed up and ready to do it? Then you found out that you were not going to be able to do it and they really didn't mean what they said the first time. Has that ever happened to you? Okay, they say that is due to a lack of communication somewhere. The TV show is going to be dealing with that idea--what is involved in communication. Before we check the TV show out, though, I want to see what you guys know about communication. There are basically three things that are involved when you are trying to get your ideas across to somebody.

Then, through a series of questions, he got students to identify a "talker" or "sender," a "receiver" and a "message," and he put the terms on the chalkboard.

Finally, he ended with these statements:

> Now, as you watch the show, write down something you think the show is trying to send you. The TV show is going to be the sender, it's going to try and communicate some ideas to you. You're going to be the receiver, so I want you to write down whatever information it is you are getting from the show. I would also like you to copy this little bit on the board. We are going to be using this later on in the week, and I want to make sure that you get the idea that there is a sender, message, and receiver.

General pre-program characteristics. The three pre-program activities

above clearly varied--there were individuals memorizing printed lists, group "discovery" of the concept of patterns, and observation and critique of an arranged fishbowl discussion--and variety was, in fact, the case throughout the observation period. There were brain teasers to attempt prior to "Blockbusting," objects and magazine pictures to classify and label prior to "Stereotyping People," and phrases to interpret differentially before "Meaning Is More Than Words."

A close look at the three, however, also reveals a few striking commonalities. In addition to being relatively long, each, in one way or another, included a general rationale and a specific reason for watching the program, numerous opportunities for student participation and "discovery," and an explicit and prolonged focus on the key concepts and points of the program. These core elements were prevalent throughout the observation period, and on most occasions, they appeared to enormously enhance student interest and understanding. In a few instances, however, they actually seemed to impede it.

Prior to the "Estimating" program, for example, Mr. Cartwright had activities which asked students (1) to estimate their needs for sixth grade camp and to figure out the basics for these estimations, (2) to estimate what they would need to purchase and the cost of those purchases, and (3) to distinguish between the above estimations and wild guessing. Some students, particularly in the second-period class, became highly restless during this 15-minute-long process, while others became sidetracked by camp issues.

The introductory session to "Stereotyping People" is another case in point. The prior activities involved:

(1) Student-generated lists of objects and classification of those objects.

(2) Student examination and classification of people in magazine pictures.

(3) Student selection of a favorite picture and judgment of what the person is like based on appearance alone.

During this 25-minute-long session many students went off on tangents about the pictures they were given and others could not grasp what Mr. Cartwright meant when he repeatedly said, "Classify the persons in the pictures, not the pictures" and "Tell me something about the person you selected."

Thus, occasionally Mr. Cartwright's efforts to systematically introduce students to program concepts and to actively involve students in the process became too long and too complicated to be effective. At other times, the length of them alone meant the curtailment of follow-up activities.

During the Program

Of all the varied media selections that Mr. Cartwright used, ThinkAbout was clearly the most engrossing. While some of his other choices appealed to one group or another, all of the students, even those who were generally difficult to control, watched ThinkAbout intently. Occasionally, because of some unrelated pre-program incident, a student would initially turn or look away in hostility, but after a few moments, he was invariably drawn in. While most of the programs seemed equally appealing, two that stood out in terms of student interest were "Meaning Is More Than Words" and "Communication Patterns." The romantic elements in each seemed to be the common denominator, and the focus on the difficulties and awkwardness of communicating with the opposite sex seemed to be right on target for these sixth graders.

Mr. Cartwright also watched the programs intently. During the

first-period class, he took notes on what points he wanted to emphasize after the program as well as good places to stop the cassette in other classes. During second- or third-period class he would then sometimes interrupt the programs to pose a question or emphasize a point. On one occasion, after he stopped a program three times, some students expressed annoyance. He responded with annoyance of his own:

> Look, I'm teaching you and I want to make a point. This is not entertainment like it is at 7:00 at night at home. I'm trying to teach you and I still think you'd rather see it this way than listening to talk all the time!

Mr. Cartwright believes that being able to stop a media selection is essential to comprehension and that ThinkAbout would be more effective if there were "space to stop and start":

> That space to stop and start, that just goes along with my philosophy and technique of using media--that it's necessary in the classroom when you hit a certain point in the show that's asking a question, or you want the kids to gear in on it, or you want to ask some specific questions, or if you want to clarify with them so that they understand what's going on, or to entice them, that you're able to stop the film or TV show. Because otherwise, especially with ThinkAbout, there's so much happening in there, there's a lot of different ideas, that if you don't stop it and bring out the one aspect, it's going to get lost in all the other aspects of it. And it tends to be a mishmash in the kid's head.

While advocating teacher interruptions of ThinkAbout, he was, however, generally opposed to assigning student tasks during ThinkAbout. In his words:

> I usually assign note taking or some questions to answer while watching films or TV shows so that they will pay close attention and not think it's just entertainment. But with ThinkAbout I usually tell them not to take notes because I think it would get in the way of the story and the overall impact and they always pay close attention anyway.

After the Program

In addition to several minutes of questioning to quickly assess comprehension after each ThinkAbout program, Mr. Cartwright always assigned either an in-class or homework follow-up activity. His emphasis on activities as opposed to discussions was purposeful:

> These programs are trying to teach the kids some skills, and so I think they need to be working on those skills instead of talking about them.

In-class follow-up activities. Because of the lengthy introductions to ThinkAbout, the usual classroom interruptions, and the 45-minute time limit, in-class follow-ups were necessarily brief. Nevertheless, within the 10 minutes or less remaining after each program, Mr. Cartwright consistently attempted to provide practice on at least one of the featured skills. After "What's the Meaning?" for example, he focused on listening skills by asking students to gather in a circle and carefully listen and respond to the contributions of classmates who were randomly called upon to continue a story begun by Mr. Cartwright. Similarly, after "Meaning Is More Than Words," he concentrated on nonverbal communication by asking students to convey meanings based on a particular set of objects or situations, without the use of words.

The most clearly focussed in-class follow-ups, however, appeared to be those that he directly linked to pre-program activities. After "Blockbusting," for example, he asked students to re-look at a "brain teaser" given before the program and to try to solve it using the techniques just viewed. After "You Can Remember," he gave students lists of items to memorize that were similar to the ones they attempted before the program. The directions afterward were, "See if you can memorize these lists quicker--within two minutes--by using the 'tips'

from the program."

While the brevity and artificiality of these in-class follow-ups worked against any real skill development, key ideas seemed to get reinforced through these activities.

Homework follow-up activities. Mr. Cartwright's homework follow-up activities stood in clear contrast to the in-class variety because they provided extended opportunities for students to apply ThinkAbout skills and concepts to their own lives in school and out.

The first ThinkAbout homework assignment followed "People Patterns" and required students to look for behavior patterns among their (1) teachers, (2) friends, and (3) relatives and within (4) themselves. In addition, they were to recognize that certain patterns inevitably occur in certain places and to identify patterns at (5) school, (6) home, and (7) a place of their choice. A worksheet with marked spaces to record the patterns of four different people and three different places was given to each student in order to clarify the assignment and organize the data collected.

The second homework activity followed the program "What's the Meaning?" and required students to identify, analyze, and describe communication in their family.

Their printed worksheets gave these directions:

1. Watch, look, and listen to how the people in your family communicate with each other.

2. Fill in the chart below as you observe things over the next few days. (The chart had columns for the date, the means of communication, the sender, the intended receiver, the location, and what information was communicated.)

3. After gathering the data, display the communication patterns of your family. (The display was to have

> pictures to represent family members placed in a family setting and arrows, color codes, or different-sized figures "to show who sends information to whom the most--to show who receives information from whom the most--or in other words, who communicates with whom in your family.")

The third homework assignment was a piece of the entire communication unit evaluation and actually built in part upon the previous two homework activities. Students were asked to assess and communicate what they had learned about patterns of behavior and communication, and the communication process in general, from the ThinkAbout programs and corresponding in-class and homework activities.

The fourth and final homework activity followed "Ways To Remember" and was far less involved than the other three because the program itself dealt with simple memory tricks as opposed to the complex concepts of patterns and communication. In this case, students were merely asked to take home a worksheet from their current unit on longitude and latitude and to memorize the key facts by using a memory trick from the program.

While the first three were clearly more thorough, taxing, and substantive than the fourth, all of the homework assignments seemed to serve essentially the same function--to provide genuine opportunities for students to develop ThinkAbout skills and concepts through meaningful practice. Interestingly, this policy of assigning homework to develop or improve ThinkAbout skills actually reversed itself with Mr. Cartwright's last two selections. Projecting ahead to a future research homework assignment, he selected "Where Should I Go?" and "Classifying Information" in hopes that ThinkAbout programs might improve the quality of the upcoming homework activity.

Connecting ThinkAbout Skills and Ideas to the Rest of the Curriculum

As shown earlier, one characteristic of Mr. Cartwright's general teaching style was his commitment to make explicit connections across individual lessons and among lessons, unit goals, and the student's life. His treatment of ThinkAbout was no exception. In the month of January, ThinkAbout programs were completely woven into the fabric of the communication unit, and at all other times, they were explicitly connected to in- or out-of-school problem solving. The memory tips were linked to academic tasks in social studies and science. "Estimating" was tied to sixth grade camp, "Where Should I Go?" and Collecting Information" were presented as preparation for a forthcoming research project, and "Stereotyping People" was an introduction to the religion unit.

In addition to these broad connections, Mr. Cartwright also frequently incorporated specific ThinkAbout terminology and concepts into other lessons and contexts. The concept of "patterns" is a case in point, for after "People Patterns," he inserted the term "patterns" wherever appropriate. Immediately after the program, for example, he referred to an earlier assignment on Eskimos as a search for "human patterns." The next day he asked students to watch for "patterns" in the fishbowl discussion with Ms. Railsway, and two days later he instructed students to look for communication "patterns" in the family.

There were similar repetitions and connections with the terms "sender," "receiver," "message," and "shared meaning" from "What's the Meaning?" During class discussion, for example, Mr. Cartwright responded to a student comment this way: "Derek, could you repeat that last

statement? You 'sent' me a 'message' and I 'received' it, but there was no 'shared meaning' or understanding." Similarly, throughout the discussion on communication among countries, he repeatedly phrased questions in the following manner:

> By taking the hostages, what "message" was Iran "sending" to the United States? How did the United States "receive" that "message"? Is there "shared meaning" in regard to the Shah? By invading Afghanistan what "message" was the Soviet Union "sending" to the free world? How did the United States "receive" that "message," and what "message" did it "send" back?

And finally, in the worksheet on communication in the family, he not only used but also underlined the terms "sender" and "receiver."

These repetitions in different contexts on the part of Mr. Cartwright seemed, to a marked degree, to further clarify and reinforce some of the key ThinkAbout points for students.

Instructional Impact: Three Attempts

In light of the preparation and integration that ThinkAbout received from Mr. Cartwright and the opportunities for practice given to students, the question of instructional impact looms large. Answers were sought through interviews with and observations of students and interviews with Mr. Cartwright.

Student Interviews

A total of 15 students from Mr. Cartwright's three classes were interviewed in April. According to Mr. Cartwright, they were a representative sample of the varying ability levels in the social studies classes. Each interview lasted from 15 to 20 minutes and involved both direct questions and problem-solving situations.

Overall reaction. All of the interviewed students claimed to "like"

ThinkAbout, but the ratings of individuals ranged from "fair" to "perfect" with "good," "very good," and "wonderful" somewhere in between. Most students found the series to be either "interesting," "educational," or "enjoyable." Several, however, were slightly more specific. According to one, "It's better than having the teacher every day"; for another, "It's good to watch because it can be associated with things that go on at school or things that go on at home"; for still another, "There are good stories that prove what they are trying to prove."

Three suggested that the programs be longer, and the following represents that sentiment: "Once people get, well, comfortable with it, it goes off." Three others complained of the open-endedness of some of the programs, with one explaining, "It gets you a little aggravated because you think, 'What's the kid going to do next?'"

When asked to identify a favorite program, student responses substantiated student behavioral signs during the programs. The two most frequently mentioned were "the one about the deaf girl and the boy" ("Communication Patterns") and "the one about the two boys and two girls at the dance" (the last portion of "Meaning Is More Than Words"), with the former getting five votes and the latter getting three. Two mentioned "the paper route," which was part of "You Can Remember," and there was one vote apiece for "the one with the UFO" and "People Patterns."

Two had no favorites, and one described a program that was not part of the ThinkAbout series. It seems noteworthy that "People Patterns" was the only program named by title or concept and that the top two choices involved romantic entanglements.

Student perception of purpose. When asked if there was one main

purpose of the series, student responses suggested four varying conceptions. Some, for example, saw the series as a vehicle for general self-improvement. Typical of the responses in this category were the following:

> To get kids to relate to how you do things well and stuff like that.
>
> They're trying to help you remember stuff and how to do better, get better, take your time, and learn more.
>
> It teaches kids lots of interesting and sometimes new ideas.
>
> What's right and wrong, how you feel about things.

Others saw the series primarily as an aid to the teacher:

> They're trying to teach you things the teacher is trying to teach.
>
> They're trying to teach us some things to get us to learn things so that teachers won't have to work so hard.

Still others saw the programs in individual terms rather than as a series:

> I think basically each one has their own individual ideas.
>
> The shows don't teach one particular thing. It varies but it's educational.
>
> Each program teaches a different little thing.

Only two students spoke in terms of a problem-solving thrust:

> It's trying to help you cope with your problems.
>
> It gives people certain ideas so that if they ever get in a situation they'll know what to do.

Student perception of application. After giving their perception of the purpose of the series, students were asked to recall any specific instances when they had actually used ThinkAbout ideas or skills. Five

claimed to have effectively used one or more of the memory "tips." According to one:

> We were having a game, and there were things on a bulletin board. The teacher would take one thing off, and we would just either have to remember the whole board in our mind and think of what one was taken off. I would do the one in the remembering show and "picture it" in my mind and then just keep it there and I would remember.

Another reported academic success this way:

> We had a test in science, and I got it. I used the grouping way from the one about how you can remember things.

Two found "Classifying Information" personally useful:

> I remember one time I saw one that told me how to make a report and I used that one because I had a report due like the next week or something.

> Well, like the one about the outline. I used that idea. After we saw that program. Mr. Cartwright had us do an outline on characteristics, and that's what I used--got me an A.

One maintained she had used what she learned about "how to communicate with people," while another claimed to have used "blockbusting" in math class. Another was more generally enthusiastic: "I've been getting good grades since we've been watching those ThinkAbouts." When pressed for specifics, however, he revealed that he was thinking of instructional television in general rather than particular ThinkAbout programs.

Two others could not think of specific instances of use but maintained that they just generally learn better from television than from books or the teacher. In one student's words:

> If you're at home and you're looking at TV, and they sing a song on TV, you learn it better than you do when the teacher will say something. You learn more things, well, I learn more things by television.

Student meanings and ability to generalize. While many of the students spoke rather positively about their ability to use ThinkAbout ideas and skills, there were also some deliberate attempts in the interview process to tap into the meanings students were in fact taking from particular programs and their ability to generalize from them. Students were asked to focus on the three specific areas that had received the most attention in class--patterns, communication, and memory techniques.

Patterns: All students interviewed remembered the program about "Richie and the old man in the hall," and all but one stated that the main point of the program was "patterns." Moreover, when asked to explain how the idea of "patterns" could be useful, most students displayed a fundamental understanding of the concept. Their explanations, however, remained rather close to the specifics of the television episode. The following comments are typical:

> It could be of great use because you memorize people patterns and you can help people like if they get sick or something.
>
> You can know a time when somebody is about to come. You can use it as a clock like.
>
> Like for instance, every morning your mother gets up and cooks bacon and one morning she's not in there cooking bacon because she might be somewhere else.
>
> It's sort of like a schedule. If you leave home at 8:00 every morning to go to work and there's one certain person that you see on the way leaving to go to work, and you're on your way home from school like I do, if one day you don't see that person, you sort of get worried about the person. It happened to me one time. I used to always see my aunt on my way home. I get home every day at 3:30. Well, one day I didn't see her and I called at her job. They didn't see her that whole day. I sort of got worried about her. I called my grandmother and told her, and she said my aunt had gone out of town.

A few students moved slightly away from Richie's problem by speaking about how patterns can simplify one's own life:

> Patterns make things easier. Like patterns of getting up and eating breakfast and then going to school makes things easier. It can be better than if you do not have a pattern, because if you don't have a pattern, you'd be running around all day, not knowing what to do.
>
> It can be better than if you do not have a pattern, because if you don't have a pattern, you'd be running around all day, not knowing what to do.
>
> When you use a pattern, they could help you remember more.

One student, however, actually went rather far afield--in fact he headed straight for the baseball diamond--with this explanation:

> In a baseball game the manager would always send up the same pinch hitter, and this batter was a bad ball hitter--he always swung at bad pitches. So if the manager of the defensive team, the team that's on the field, remembered the pattern and told the pitcher that the guy swung at a lot of bad pitches, they might be able to save the game.

"Patterns" did not, however, explicitly come into anybody's mind when the following problematic situation was presented to students toward the end of the interview:

> You live near a large shopping center, but when you apply for summer jobs in the various stores, everyone tells you the same thing--"You're too young." Wanting to earn some money, you decide to open a lemonade stand near the center so that you can sell cold drinks to the warm shoppers as they come and go. Each day you make the same amount, but on some days, you are sold out before noon, while on other days, you have almost a whole pitcherful left which starts to spoil in the hot sun. Can you think of any ways to solve this problem? Can you think of any ways in which you might predict approximately how many customers you have on a given day?

There were a number of good suggestions--to make the lemonade by the glass, to get a cooler, to make more on hotter days. No one, however,

explicitly suggested that observation of people's shopping "patterns" might enable one to predict how much lemonade to prepare. One of Mr. Cartwright's "brightest" students actually expressed the idea but without the term "patterns." The dialogue in the interview went this way:

Student: I think I would make less on weekdays. And more on weekends. And then maybe I'd bring a cooler along and use a smaller pitcher and keep extra lemonade in the cooler.

Interviewer: Sure, those are really good ideas. I think you are quite right to assume more people shop on the weekends than on weekdays. Is there any other way, perhaps, to figure out during the weekdays which days might be busier days? Can you think of a way in which you could figure that out or at least be able to predict with some accuracy?

Student: One week I'd keep track of all the customers I had and assume it would be that way all the time. What I would do is, the first week I would see which days are most likely the ones that I have more sold, and which days are most likely that I have less sold. And then that week, that Friday evening, I would write my schedule. Then the next week after this week, I would be prepared.

When the fact that almost no one saw "patterns" as a useful approach to solving the lemonade-stand problem is added to the fact that most student explanations on the usefulness of patterns were closely related to the program incident, one might speculate that there was understanding of a limited nature, but little capacity to generalize. Other possibilities, of course, are that the lemonade-stand situation was not an appropriate one in terms of the concept or grade level, or that the students did not or could not express the breadth of their understanding.

Communication: Students were directly asked two questions regarding programs on communication: (1) What are the three parts of the

communication process? and (2) What was the main point of "Communication Patterns"?

The responses to the first were remarkably similar. All but two remembered, on their own, the "sender" and "receiver," but needed assistance to remember "message" and "information." Of the two remaining one remembered all three parts and the other remembered none.

The responses to the second were somewhat more varied. Several talked of the story rather than the main point:

> He had to use sign language to talk to her. He had patience.
>
> He tried to communicate with her because she was someone new.

Of those who addressed the main point, most spoke of the idea that the deaf can communicate. The following comments are typical of their responses:

> That just because a person is deaf, that means they can still communicate.
>
> It kind of seemed that they were telling some people that deaf people can communicate and they're not hopeless in communication.

A few pushed the idea a little further to the notion that the deaf are similar to others in many respects:

> That you can't really judge a person whether they're deaf or not. They still have feelings of a regular human being which is not handicapped in any way. And that they're not really different. They are different but they're not different.
>
> You shouldn't be scared to talk to a deaf person. He was scared and then he started talking to her, and they kept talking to each other.

Only one student, on his own volition, strayed from the narrative, with this comment--"You're learning a different way of communication"--and one, under probing, said it demonstrated that there could

be both "verbal and nonverbal communication."

In addition to the two questions, students were presented with the following problematic communication situation:

> You are to meet two of your good friends at the park. When you arrive you find each sitting alone and pouting at either end of a long park bench. When you ask Jimmy what is wrong, he tells you this story: "I saw Tommy on my way over and I ran over to walk with him, but he waved me away and would not speak to me." When you ask Tommy what is wrong he tells this story: "Jimmy came up to me while I was trying to memorize my speech for the student council assembly, and I waved him away, saying, 'I don't want to talk now.' As soon as I finished, I ran to catch up with him, but he wouldn't speak to me." What do you see as the problem, and how might you help solve it?

Most students identified the problem as a "misunderstanding" and made suggestions ranging from "explaining the situation to each other" to "starting a game and forgetting it." Only one student explicitly connected the misunderstanding to problems in the communication process ("the problem is a communication gap"), and no one spoke of difficulties in terms of the sender, the receiver, or the message itself.

The failure of students to connect the "park-bench problem" to the communication process as well as their lack of ability to generalize in their explanations of "Communication Patterns" suggests once again that while there was instructional impact, it may have been situationally specific. On the other hand, it is equally possible that the problematic situation was not a good one and/or that there is a limit to these sixth graders' ability to abstract or express abstractions.

Memory techniques: In an attempt to assess whether students would, in fact, use memory tips from ThinkAbout when given a memory problem, the final task of the interview was for students to memorize either a

list of the planets or a list of groceries and to explain their method. Eight of the students clearly used either "picture it," "grouping," or a sentence clue. Two students used the same sentence clue for the planets ("My very educated mother just sent us nine pizzas") and explained that their entire science class was using it. One of the students enthusiastically added, "And it works, too!" Five students did not mention any of the ThinkAbout tips (e.g., "I just looked down the list five times and memorized it"; "I have a good memory"), and two responses were too ambiguous to assess ("I kind of thought of going down in order" and "looking at it down in order").

Summary statement. Since the interviews were limited (15 out of 66 students) and the problematic situations presented were unstudied first tries, conclusions are difficult if not impossible to draw. Two points, nevertheless, seem worthy of serious consideration. First, extensive teacher input may be a necessary prerequisite for a basic but limited student understanding and recall of ThinkAbout skills and ideas. Second, repeated reinforcement, opportunities for application, and direct instruction may be necessary prerequisites for the transfer of ThinkAbout skills and ideas to the students' personal world of problem solving.

Observation of Students

Since there were only 13 ThinkAbout programs viewed, the rest of the observation days were given to capturing the overall curriculum and to searching for specific outcomes from the selected episodes. Considerable data were amassed on the former but none on the latter. As students worked on academic tasks related to the units on communication, latitude and longitude, and religion, there were no observable instances

of student behavior that were influenced by ThinkAbout.

What was consistently observable, however, was student interest in the programs. Students displayed obvious excitement when they learned that ThinkAbout was about to be shown, and afterward they frequently asked with genuine interest when the next one would be shown in school or at home. If interest, attention, and enthusiasm can be considered as possible forerunners to learning, then these may have been in fact observations of the initial stages of instructional impact.

Interviews with Mr. Cartwright

Through one formal interview in April and a number of informal interviews during the observation period, Mr. Cartwright conveyed his personal assessment of the overall quality of the ThinkAbout series, its specific instructional impact on students and himself, and its long-range future in classrooms.

Quality of the series. ThinkAbout receives a high rating from Mr. Cartwright for a number of reasons. To begin with, he maintains:

> It's an action-type media, and TV or films always catch the kids' attention more than something static--either a textbook or a book or even a filmstrip. So the fact that it is a moving media is beneficial to it.

In comparison with other film media it also receives good marks, primarily for its naturalness and its appropriateness for its audience:

> I would grade it high because it doesn't talk down to the kids at all, to the population it's geared to--at least not to our kids. It's not over their heads. It's pretty well geared to them in the sense that it seems very natural. It's not like scientists sitting and talking to kids or somebody lecturing them. It's up-to-date and it uses the kids of their same age or approximate age. So it's easier for the kids to identify with that on the program. I think the acting

> on it and the scripts and the story lines are believable. The kids are good actors. I mean, you don't find any stilted acting or overacting.

Another positive feature, from Mr. Cartwright's perspective, is that ThinkAbout teaches "on a subliminal basis." He makes the point this way:

> The kids get involved with the story and are able to identify with it. Even though they are seeing it in an entertaining light, they are being consciously exposed to something, and some of it has to sink in. And it's not such didactic teaching as a narrator coming on and saying, "This is how you memorize things" or "This is how you do a research project." The kids have enough of that. There's plenty of media that does that, and that's what teachers do a lot of the time--a very didactic type of instruction. I think the kids are more open to this approach. They need that other stuff for sure, but they reach a point where they automatically tune it out or turn it off. And I think their minds, their conscious minds are more open through the ThinkAbout shows to have those concepts and ideas sort of sneak into their minds, hopefully.

Two other aspects of the series that received praise from Mr. Cartwright were the technical quality and the sensitivity to racial issues:

> I think they did, in a number of them, a fine job of coordinating the mood and the music and the information they were trying to get across. Technically, they were well done. Also, some of the shows have been well integrated. I can't think offhand which ones weren't. In our community you have to be aware, and I think I am very aware, and I think a lot of the other educators are aware, of that integration facet. In just a couple of the shows it seemed to have all white characters. I think more than any other TV series, ThinkAbout was more integrated.

Mr. Cartwright believes that the strong student interest in the series substantiates his high opinion. He noted, for example, that when some of his science students were discussing what they wanted to do during a break between units, one person suggested ThinkAbout.

When he told her he preferred to save new ThinkAbout shows for all of the social studies classes, she suggested seeing some that they had already seen and named "Communication Patterns" in particular. Others seated nearby readily agreed.

The greatest testimonial, however, in terms of the quality of the series comes from Mr. Cartwright in the form of a spontaneous conversation with the observer after the session on "Stereotyping People." In the course of explaining his choice of the ThinkAbout program to introduce the unit on religion, he had this to say:

> I had planned the religion unit a week or so ago and had planned to start it by going back to human characteristics and showing religion as distinctly human. Then I attended a workshop where it was suggested that units of work ought to start where the kids are--with their assumptions and beliefs. I thought about it for a while and I came up with the idea of starting with their own stereotypes and prejudices. I knew I would have to introduce the concept of "stereotyping," but I didn't want to spend several days--I wanted to put most of the time on the various religions themselves. I asked myself what would be a one-day activity that could get across the idea with a minimum of effort and a lot of impact. Then I thought, the ThinkAbout shows are good for that--they are involving, fast, and have impact.

Because of its quality and its potential for reaching students, Mr. Cartwright recommended ThinkAbout to others in the district and maintained that he would use it again himself. His use next time around, however, will probably be somewhat different. He explained his intentions this way:

> I would still coordinate it and integrate it in the curriculum as a whole, but I'd also try to approach it more experimentally to show it as real ways to solve problems. I would be more apt to try to present it as I see it was designed for--to teach them actual teaching skills, just for the sake of teaching those skills.

Instructional impact. While Mr. Cartwright is firmly convinced that ThinkAbout programs do have an instructional impact on students, he claims to have clearly seen evidence of impact only in one area, that of memory techniques. As he tells it:

> In the science classes that I teach, the kids have used some of the techniques of how to memorize things. And they verbalize how they were doing it, either through getting a mental picture or using the first-letter or first-word-type thing. So I think the kids have picked up on that area.

He also reported a glimmer of impact related to the concept of patterns. The report went this way:

> Yesterday or the day before in a science class we were talking about rates, how to measure your heart rate and breath rate. As we were discussing the word "rate," and I was giving them some examples like "If you kept track of the rate of numbers of cars that passed by Baker during the course of the day..." and John Carter said, "You mean like a pattern?"

Other areas, however, he finds more difficult to evaluate:

> As far as areas such as stereotyping, classification, and gathering information, I don't know if they've picked it up or not any more than I know if they picked it up from me or filmstrips or whatever.

And he could not say, as Ms. Church did, that as a result of watching ThinkAbout, this year's students were any better thinkers, problem solvers or independent learners than those of years past.

What he could and did say, however, was that ThinkAbout had actually had an effect on his own thinking and behavior. He reported, for example, that he had found "patterns" a useful concept in several contexts, and he proudly displayed a science unit on cells that he had recently organized along the following three categories: what you will need to know; what you know already; how to find out and

learn what you don't know right now (an adaptation of ideas from Cluster 4).

The future. Despite his own positive feelings and experiences regarding ThinkAbout, Mr. Cartwright is rather pessimistic about the long-range impact of the ThinkAbout series. His pessimism is, however, not related to the series in particular, but to general teacher attitudes toward media. He expressed his concern in these terms:

> As with any media, for this kind of program to be effective, the teachers have to know how to use media and have to be comfortable in using it and become aware of it and make it available to them. For most teachers I think it's too much of a hassle for them to get out the projector, get out the television show, to deal with film breaking, to deal with the machines breaking, to deal with tape fuzzing up, not having the right color, with the media not being delivered, with all those things. For them it's too much of a hassle. And it is a hassle for sure. But I think they need to be taught how important, what a viable tool the media is. And so, for ThinkAbout to be a successful program, you have to sell the teachers on the media first. If they're not comfortable with using media, they're not going to use ThinkAbout or any program.

As to how to "sell" teachers on media and make them "comfortable" with media, he suggested that teachers have to personally experience their possibilities:

> I guess the only way to do it is to have them experience it themselves what a good tool it is. And again a lot of it is just going to be based on their philosophies. You're never going to convince them with words that using media is going to be a viable way for the kids to learn. They feel it's going to be necessary for the kids to write, work on the workbooks, and that. But I think that somehow, and I don't know how to do that, that they just need to be empirically shown that it can be used and ways to use it and that it is a legitimate—more than legitimate—way for kids to learn.

And the place to start, in Mr. Cartwright's view, is with teachers-in-training and new teachers:

> When they're going to school, that's where they're forming a lot of their values on teaching, in their own experiences and of course what they are getting exposed to. So, if they can go into their teaching career holding media as valuable.... A lot of the reason why teachers don't do it is because the time and effort and energy that's involved with it. They've got families, they've got other jobs, they've got all this stuff. So they don't want to do the preparation that it takes to do a good job with it. If you get new teachers, chances are they're going to be single and they're going to have the time, the effort, the motivation to do all the preparation that's needed to do a good job. If that can carry them through for the first four or five years where they can really see the value of it, then when they get married, and when they get involved with other things, they'll have the techniques and skills to still develop a good program but not put as much time and energy into it. They will still want to because they know how valuable it is and they will be able to do it more readily off the top of their heads as a result of their previous experiences.

Mr. Cartwright hastened to add, however, that even if large numbers of teachers ever became convinced that media, "when properly used, can be a viable and legitimate tool," they would not necessarily be willing to put forth the effort to use it:

> Teachers use textbooks and workbooks as crutches. If I want to take it easy on myself, I'm more apt to give the kids a workbook or textbook--"Read the paragraph and answer the questions." It's much easier on me than showing a film.

Circling back to ThinkAbout in particular, Mr. Cartwright ended with this gloomy prediction:

> I think it's going to go down the tubes because I think for it to be effective it takes a lot of input from the teachers and a lot of effort and time and energy. And I don't think 98% of your teachers are going to want to do it. I don't think it has anything to do with teachers in and of themselves. You only have a small portion of any population that are motivated, that are active and want to put out extra. Unfortunately, with teaching, in order to do the most effective job, you have to be that type of person, and with media within education, you have to be even

more so to get around. As good a program series as it is, I think it's going to sit on shelves because teachers won't make the effort to use it or use it properly. And it's a real shame because I think it's a very good, very good program.

SUMMARY AND CONCLUSIONS TO CASE 2

What happened when ThinkAbout was used in Mr. Cartwright's social studies classes? At the most fundamental and general level, the answer is clear: students appeared to enjoy ThinkAbout programs and to take some ideas and skills from them. This initially positive conclusion, however, inevitably gives rise to at least two other, more complex considerations--namely, what was the extent of the learning, and under what conditions did it occur?

While it is nearly impossible to assess with any degree of accuracy the full extent of student learning, the data from the observation period suggest the following: (1) most students could recall the basic details of the episodes viewed, (2) some students could identify key points and explain, at a low level of abstraction, the main idea of certain programs, (3) a few could generalize from program concepts, and (4) application, when it occurred, involved the most specific and concrete of skills--memory techniques.

The basic conditions under which such learning transpired are somewhat easier to specify and, for the most part, are highly favorable. They were as follows:

1. Although Lyon Heights was in the throes of the back-to-basics movement, Mr. Cartwright, as a sixth grade teacher, felt considerable freedom to develop a social studies curriculum of his choosing.

2. The curriculum he chose to create and his general teaching style promoted and supported the same skills as the ThinkAbout series--critical and creative thinking, active and independent learning, problem solving and decision making, using skills in combination, and seeing "the bigger picture."

3. Mr. Cartwright had great enthusiasm for teaching and gave considerable amounts of time and energy to the planning of all units and individual lessons.

4. As a result of systematic district training, Mr. Cartwright was highly skilled in the use of media.

5. Students were exposed to a limited number of ThinkAbout programs and were thoroughly prepared for each.

6. Students participated both in brief follow-up classroom activities and extended homework opportunities for practice of ThinkAbout skills.

7. Mr. Cartwright continuously linked ThinkAbout skills and concepts to other student activities in class and out.

8. The ThinkAbout audience was a lively and restless group of budding adolescents whose attention was difficult to capture and even harder to keep.

When one becomes more specific and considers the observed level of student learning in relation to the nearly optimal conditions for the development of ThinkAbout concepts and skills in Mr. Cartwright's classroom, while the first seven conditions strongly argue for even greater levels of learning, the eighth is significant enough to severely retard the entire process. Perhaps, while it is appropriate to set high goals, one can actually expect no more in any learning environment, with any group of youngsters. The possibilities are many, and the data do not clearly point to any one of them. What emerges instead is the distinct possibility that the teaching task related to ThinkAbout is far more complex and difficult than either its creators or its initial users might have imagined.

KING ELEMENTARY SCHOOL

At the same time that Mr. Cartwright's three sixth grade social studies classes were watching ThinkAbout at Baker, fifth graders at nearby King Elementary School were doing the same. Although King is just a few blocks away from Baker in the southwestern section of Lyon Heights, the physical, social, and academic settings seem miles and miles apart.

To begin with, King is a small school--a three-story brick and stone building that sits amidst some well-kept and moderately expensive apartments and duplexes. While the outside is rather nondescript, considerable energy has been expended to make the inside cheerful and inviting. The large glass double doors at the entry lead into a wide center hall whose walls are decorated with two huge, carefully and colorfully arranged bulletin boards. One is filled with children's artwork; the other warmly beckons the visitor with a "Welcome to King Elementary School" sign in large, bold, multicolored letters.

To the immediate right of the hall is a suite of three offices. The main office is just large enough for a desk for the secretary, a filing cabinet, a duplicating machine, mailboxes for the teachers, and two visitors' chairs. A healthy-looking philodendron sits on top of the filing cabinet, and two large fern plants hang from the ceiling. To the right of the main office is the principal's private office, a room strikingly attractive because of its many large plants and the unusual collection of pictures of grizzly bears on the walls. To the left of the main office is a sparsely furnished clinic.

Straight ahead is the large gymnasium, and the visitor who opens

the big double wooden doors for a quick look inside also gets an earful of squealing and hollering as playful children enthusiastically compete in games and races.

To the immediate left of the hall is a stairway that leads down to the cafeteria, the teachers' lunchroom, and two classrooms (usually for first or second graders) and up to a hallway of classrooms for the older children. Past the stairway on the main floor is a short hallway that begins with the library and ends with the kindergarten room. In between are classrooms for the second and third graders. On every floor, attractive displays of children's work—art, science projects, historical murals--abound.

The school population of King is small (approximately 175) and probably the most racially balanced in the entire district (almost 50-50). As they move through the halls to lunch, gym, recess, music, or library, the children appear to be middle to upper middle class, well-dressed, and wholesome-looking—lively, but not rambunctious; noisy, but not boisterous.

In contrast to the racial balance among the children, the faculty at King appears quite homogeneous. Fashionably dressed, white, mostly middle-aged, self-assured women with years of teaching experience predominate. Most of them work in self-contained classrooms, but several have split grade levels. Over the years, a few have chosen to team in open double-classroom spaces. This year, there was a team arrangement for first and second grade, and another for fourth and fifth.

Social life on a daily basis for teachers seems almost nonexistent at King. There is no lounge or other central place to congregate, and most teachers seem to work in their classrooms during their free time (grading or preparing). Some teachers eat lunch in the teachers' lunch-

room, but others stay in their classrooms with a lunch brought from home. The only organized social activity is a coffee period before school each Friday to which teachers and staff take turns bringing home-baked coffee cakes.

Despite, or perhaps because of, the lack of daily social interaction, there appears to be a general tone of harmony and a spirit of cooperation in the building. Teachers praise their aides, the aides praise the teachers, and everyone praises the principal. In fact, if there is one unifying force in the building, it is the overwhelmingly positive sentiment for the principal. A dynamic man in his early 40's, Mr. Lewis is constantly in and out of classrooms, supporting teachers, helping with children, and making clear to everyone his expectations. As one teacher explained it:

> I think the thing that makes this school so nice is the principal. He makes everybody feel like they are doing a good job. He lets them know if they aren't. He has very specific ideas of what he wants done in his school and he is, after all, the boss in the school. We know where we stand with him all the time. This school is run very efficiently. Everybody gets along, for the most part. It's very well run.

Under the leadership of Mr. Lewis, everyone in the building does in fact seem to be busily and efficiently engaged in the process of teaching and learning. Teachers and aides seem to pursue their classroom duties with energy, enthusiasm, and expertise, and even informal conversations among passing staff members in the hall are usually work-related. The resulting impression of King Elementary is that of a small, caring, competent, and highly productive school community.

MS. HAUSMAN AND HER "LIBRARY CLASSROOM"

Among the competent and productive staff members at King is the library aide, Ms. Lillian Hausman. At King, the job of library aide is essentially an instructional one, and that, in part, seems to account for why Ms. Hausman, who has a degree in elementary education, finds the job "satisfying." Another appealing aspect of the job is that the instruction involves all grade levels. Having previously taught only at pre-school and kindergarten levels, Ms. Hausman was searching for a "situation with older children." Because she is the mother of two elementary-aged children, the lack of pressure may, however, be the job's most attractive feature. In her words:

> After working as a substitute for a while, I pretty much decided that this was the kind of job that I was really looking for. I wasn't interested in becoming a full-time teacher again. This was a job that I could handle six hours a day and still feel comfortable at home with the things we do at home. And I still have fun teaching and am not feeling pressured by it.

Except for her work with the "Great Books" series and her storytelling with the first and second graders, most of Ms. Hausman's instruction is related to television programming. When she entered the library aide position at midyear, several years ago, she found an already clearly defined division of labor. One of the district's certified librarians was at King once a week to handle the overall organization of the library, the ordering of materials, and the teaching of library skills to the older children. The role of the library aide was primarily to use a variety of instructional television programs with all grade levels.

According to Ms. Hausman, the principal recommended the retention

of this role division, and according to the principal, he did so to "utilize" Ms. Hausman's skills and to keep instructional television in the building. In his words:

> I know she's skillful in teaching . . . and I'm always seeking ways to get teachers to get instructional television into their programs. This seems like a good way to do it. There are some valuable things on television, but the problem is that the teachers are busy planning their own lesson plans for the day, grading their papers, and so on.

The decision to continue with instructional television was a good one from Ms. Hausman's perspective as well, for as she tells it, she "can use television in the library without a lot of advance preparation at night." In addition to nicely fitting into her preferred work style, instructional television is also quite convenient for Ms. Hausman. In all Lyon Heights elementary schools, the video equipment is housed in the library, and thus Ms. Hausman has access to it at all times. Moreover, the library itself is large enough to permit Ms. Hausman to create a small, but well-defined, carpeted viewing space in one corner--her own "library classroom."

THINKABOUT IN MS. HAUSMAN'S "LIBRARY CLASSROOM"

Classroom Use

Every Friday morning between 10:00 and 11:00 all of the fifth graders at King have "library." Sixteen file down to the library at 10:00, and when they return at approximately 10:30, the next group of 18 comes down. Since Ms. Hausman decided to adopt ThinkAbout for this age group, the 30-minute weekly period has essentially become "ThinkAbout time." Upon entering the library, the students head directly for their corner library classroom, sit down on the carpet, and wait for Ms. Hausman to introduce the program. Both groups see the same program each week, and thus Ms. Hausman teaches the same lesson back to back.

Viewing Patterns

Ms. Hausman showed the first ThinkAbout program in early November and continued every Friday (except for school holidays and special library projects) until mid-May when the library was "closed." While she was using the preliminary teacher's guide, it was not apparent to her that there were in fact a total of 60 programs, and she simply followed the sequence. With the arrival of the new guide came the recognition that she could not view all programs and a decision to become selective after Program 22. For the remainder of the year, she chose Cluster 9, "Using Criteria," and Cluster 11, "Judging Information," and concluded with the Tip program (49) "Make a Deal with Yourself."

Teacher Preparation

Ms. Hausman did not prepare for ThinkAbout at home, but she did nevertheless prepare. Probably the most consistent form of preparation was her practice of previewing each cassette prior to use. Since the

video equipment was kept in the library, it was relatively easy for her to find 15 minutes during the week to preview. While the purpose was to enable her to better introduce and follow up programs, the previewing process, on one occasion, also enabled her to eliminate a program that she deemed inappropriate. The program eliminated was Program 14, "Where Are You Coming from?" and the reason was its elitist prep-school setting. In Lyon Heights, at the end of the sixth grade, the brightest and wealthiest students often compete for places in local private, college prep schools. Many district administrators and teachers are frustrated when the brightest leave; many parents are disturbed by the tension the competition creates among the children. As a parent and school person in Lyon Heights, Ms. Hausman "did not want to focus on private schools, particularly at this time." She spoke to this issue and to some other reservations about Program 14 as well in these terms:

> Well, when I previewed it, I have to say that my first reaction was that I don't want them to know anything about private schools, especially these fifth graders. I like to hope that they will all go on to Baker. That is my own personal bias. Then, as I got into it and watched it, I didn't think the kids would go for or most of them would understand the different style of talk. I thought they would think their uniforms would be a little strange. They were all dressed up. It was an all-boys' school. I didn't care much for that. There were not, as I recall, any blacks in it. It seemed pretty exclusive. And it isn't that I don't think the kids should be aware of this, I just didn't feel good about teaching it at this point. I don't think the actual program "Where Are You Coming From?" is important enough to show in this particular framework. . . . I was kinda torn about not showing it because I don't ever want to be accused of not showing these kinds of things. I just didn't think it was important enough to show it. . . . The teacher was good, though. I did like, I can't remember what her name was—Mrs. Parmenter. She was an older woman and she seemed quite understanding, but she also spoke in a way I

> didn't think the kids would understand, either. They might laugh at her. She reminded me of my old Latin teacher.

In addition to previewing, Ms. Hausman usually read the program "summary" and the "Before" and "After" suggestions in the guide before class time. Many times, she prepared her own introductions and/or follow-up activities; at other times, she followed parts of the guide closely; occasionally she labeled herself "unprepared" and developed her pre- and post-remarks spontaneously. At each of these varying levels of preparation, however, her practice of previewing programs seemed to hold her in good stead.

Before the Program

Ms. Hausman always introduced ThinkAbout programs, and her introductions were usually considerably more developed than the teacher's guide suggested. While they varied in length from about two to five minutes, most seemed to be prepared in advance and aimed at (1) relating the program to the students' experience, (2) stimulating interest, (3) giving students something specific to watch for, and (4) hitting the key ideas. Ms. Hausman was differentially successful in achieving these ends, particularly in regard to #4.

For example, the introduction to Program 13, "The Bigger Picture," seemed to effectively cover all four points, and went this way:

> Today we are going to talk about context. Does anyone know what the word "context" means? C-o-n-t-e-x-t, context. (Two students respond, but their answers are unintelligible.) Well, I looked it up in the dictionary. (She holds up a large sign and reads:) "Context: The parts of a written or spoken statement that precede or follow a specific word or passage, usually influencing its meaning." Now I want to give you an example of what happened to me personally last week. You know last Thursday I wasn't here. Here's what happened to me, and a similar thing is going to happen to Danny in the film. Let me tell you the whole picture first. I

had a friend fly in from New York City, an old friend from when I used to live in New York, a very close friend, and I was very anxious to see her, and so I made arrangements to leave school quite early in the day so that I could go to the airport to pick her up, have lunch with her, and spend the day with her. You know that on Thursday, Miss Jones, the other librarian, is always here, and in the afternoon I do my regular library work. Well, I planned ahead and got all my work done, and I had permission, and everyone knew I was going to be gone. Now something else happened. I got sick--a very bad cold--and so I didn't come in at all on Thursday. I was going to come in for the first hour and a half. Well, Wednesday I was in the hall talking to one of the teachers, Ms. Rose, and I was explaining to her that I was not going to be in Thursday when a little girl stopped in the hall and overheard me say this: "I'm not going to be at school tomorrow because I have a good friend coming in and I'm going to pick her up at the airport." The next day Ms. Rose was explaining to her class that Ms. Hausman wouldn't be at school, so the library would be closed, and at this point, the same little girl raised her hand and said, "Ms. Hausman is not going to be in school because she has a friend flying in"--implying that Ms. Hausman was playing hooky from school. So this is what happened--the little girl took it out of context, she didn't know the whole picture. She didn't know that it was alright for me to go, that I had permission, and she also didn't know that I was sick and wasn't coming in at all for that reason. That is a misunderstanding that was taken out of context. She didn't know the big picture. Now I want you to watch and see what happens to Danny and I'm going to leave this sign up here so that every now and then you can look up and see what "context" means.

The introduction to Program 18, "What Should I Do?" was considerably shorter but also seemed to include all four points. The pre-program remarks went as follows:

Ms. H: You missed ThinkAbout last week because of your science projects, so just to refresh your memory, we've been talking about "What Do I Know?" and "What Do I Need To Know?" and "Where Should I Go?" and today we will be talking about "What Should I Do?" Today's program is about a school cafeteria, and you all know about cafeterias. Every four weeks here, you get a menu, and if you're like my children, you say "Yuck" or "Great," and you'd rather have pizza than tuna salad. Well, we are

lucky here at King to have such a small school with a self-contained kitchen and such good menus. In bigger schools the food is not usually so good. Today you will see kids who are not impressed with their school cafeteria and think they can do better, and they get a chance to try. Watch to see what they come up with and what they have to go through. See how they organize and use resources--it's not as easy as it seems.

Student: Last week there were bones in the hamburger in the cafeteria.

Student: Why don't they just make pizza all the time?

Ms. H: Okay, let's see why they can't have pizza all the time.

Some introductions, however, seemed to fail in terms of item #4--hitting the key idea. A case in point is the introduction to Program 46, "What's Enough?" which is presented below:

Today's program is about judging information, and I was thinking about how this relates to things you kids are doing right now. I wanted to tell you something that we are doing at Holly Hills School with the fifth graders. You know most of you are going to Baker next year, and one of the things we are doing at Holly Hills is having a "Baker-Bound" night. We're having the principal and the assistant principal from Baker come over and talk to our fifth graders and parents, and we are also asking some of the kids who used to go to Holly Hills who are now in sixth grade to come back and talk a little bit about what it's like to ride the bus, what it's like to have a locker to put stuff in rather than what you are used to in your other school, what it's like to take a foreign language, to eat in a cafeteria with so many kids--so that's going to be a lot of information given and from the point of view of one person, and so our fifth graders are going to have to be taking in this information and they are going to have to decide how it's going to be for them. This is one example of listening to information and judging what they can use--what of this information they can use for next year. You might have the same experience as you are talking about things you will be doing when you leave King. You're going to be taking in a lot of information, and especially next fall when you start out in deciding what's best for you. And some of the information may be wrong or it may be different than it

> actually appears to be. You may hear something that isn't the way it seems once you have experienced it. Today our program is about a young boy who has a brand-new bicycle, and it gets stolen ("Oooh"s from the students), and the information he is receiving is really different than it actually is. So I want you to watch the program carefully and decide how he used this information and then how he was able to deduce at the end who actually stole the bicycle.

Now while this introduction is in the general domain of "judging information" (the cluster title), it does not clearly hit the main idea of the program, which is "about how to decide when you have enough information to reach a conclusion." It relates instead to taking in a lot of information and trying to decide what will be useful. Further, Ms. Hausman seems to have misunderstood the ending, because she claimed that Bobby figured out who actually stole his bicycle, when that was not in fact the case. The problem in this instance seems twofold. On the one hand, there is a lack of clarity as to the key points of the program, and on the other hand, there is the difficulty of relating the program's ideas to students' experience. Afterward, Ms. Hausman spoke directly to both difficulties:

> You know, I knew that introduction was not exactly right for this program, but it was the only way I could think of to tie it to their own experience . . . and, you know, I'm almost ashamed to admit it, but I saw that program three times, but it wasn't until the end of the third time that I really saw what was happening at the end. There really was no conclusive evidence that the girl took Bobby's bike, but somehow I didn't catch that the other times.

Another, less obvious instance of missing the key idea can be seen in the introduction to Program 12, "But What Does It Mean?" According to the guide, the main idea of the program is that "the meaning of a letter, poem, or other one-way communication can be clarified by asking questions about it or discussing it with others." The following transcript of the introduction to that program reveals, however, how the

questioning idea was lost at the end:

Ms. H: Have you ever received a letter, watched TV or a movie, or read a poem and not quite understood it?

Student: Once I read a poem and couldn't understand what it was all about.

Student: I checked out a book of poems and couldn't figure it out. I read them over and over, and then I asked my mother and she helped me.

Student: I can't understand anything in the Bible.

Ms. H: What do you do?

Student: Ask my mother.

Ms. H: So some of you have discussed what you didn't understand with your parents. In our ThinkAbout program two young girls, Cathy and Diane, found a box of their great-grandmother's mementoes, and rummaging through, they found some letters and a poem. They start to discuss what it means but they're not sure, so they discuss, question, and argue. I want you to watch to see if you can figure out for yourself what it all meant.

Although this introduction starts out clearly focussed on the main point, it strays off target toward the end. Instead of having students focus on how questioning and discussing can help interpret meaning, students were asked to figure out the mystery "for yourself." As will be noted later, this introduction led in turn to an after-the-program discussion on the mystery, rather than the process of figuring out the mystery, and culminated in an assignment that asked students to determine "on their own" the "terrible secret."

Thus, while there were always extended introductions, many of which effectively prepared students for viewing, there were also, at times, pre-program remarks that seemed to "miss the mark" in terms of the key idea.

During the Program

Since Ms. Hausman's library classroom had only one chair--a large rocking chair for her--the children watched ThinkAbout while sitting close together on a carpet. Because of the informal and close quarters, there was always a certain amount of elbowing, touching, and complaints such as "He's bothering me" during the entire 30-minute period. These disruptions, however, were minimal during the viewing time because most students became thoroughly engrossed in most of the programs. Two selections that stand out as being particularly involving are Program 45, "What's Important?" and Program 46, "What's Enough?" and the special appeal in both instances seemed to be the element of mystery. On the other hand, the one program that stands out as the least involving is Program 18, "What Should I Do?" and the problem there appeared to be a lack of action. Occasionally, one could observe one girl braiding the hair of another, or one student drawing on the back of another, but their eyes were almost always glued to the television screen. They consistently laughed or sighed at appropriate places, and there were frequent groans or "Oh, shoot"s when the programs were over. All the while, Ms. Hausman sat in her comfortable rocking chair and watched the program as intently as the children.

After the Program

Discussions. Depending upon the length of the time allocated to introductory remarks, there were usually 10 to 15 minutes of the students' 30-minute library period remaining after the program. With one exception, Ms. Hausman chose to use that time for "discussions." Early on in the observation period, it was apparent that Ms. Hausman was having difficulties

with these discussions and that she was well aware of them. Awareness, however, did not lead to any major changes, and toward the end, the same problems were manifesting themselves. Moreover, as time went on, Ms. Hausman sometimes sent the children back to their regular classrooms 5 to 10 minutes early because she did not know where to take the discussion.

The major difficulty with most of Ms. Hausman's discussions was that they "missed the mark," a phenomenon discussed earlier. More often than not, Ms. Hausman failed to move the discussion from the story to the idea behind the story, and in most instances the failure seemed to rest with a lack of questioning and discussion skills.

A case in point is the discussion after Program 12, "But What Does It Mean?" which went as follows:

Ms. H: What do you think?

Student: I like it.

Student: It was too short.

Student: He knows it's time for him to die--he dies.

Student: Well, then who mailed the letter?

Student: Someone could have found it or given it to somebody to mail.

Student: I think he mailed it and then died.

Student: I think the grandmother had the chest and then gave the chest to someone else.

Ms. H: Do you have any idea what the terrible secret is?

Student: He probably wrote it, mailed it, and then he got killed.

Student: I think the secret was he would die soon.

Ms. H: We have three answers. One, he died and someone mailed the letter. Two, he died after he mailed the letter. Three, the terrible secret is that he knows he is going to die. I don't know which one it is, either.

Student: Why don't they finish these shows?

Ms. H: Good films often leave us thinking.

Student: That's what you're supposed to think about.

Ms. H: I'm going to give you an assignment now. I want each of you to try to figure out on your own what the terrible secret is and write it down in a sentence or a paragraph. I'll collect them later this afternoon.

In this discussion, Ms. Hausman did not help the students interpret the meaning through her own questions; she asked only, "What do you think?" and "Do you have any idea what the terrible secret is?" In this discussion, Ms. Hausman did not encourage students to interpret the meaning through their own questions; there was only one student query. In fact, instead of focussing on the process of interpretation through questioning and discussion, the experience for students was one of making wild quesses as to the terrible secret. The key idea was then completely negated with the assignment, which asked students to determine the meaning "on their own."

The discussion after Program 13, "The Bigger Picture," suffers from some of the same difficulties and raises a new issue as well. The dialogue went as follows:

Ms. H: Danny had a little problem with his mother. What was his relationship with his mother?

Student: He didn't think it was good.

Ms. H: In the beginning did you think it was good?

Student: Yes.

Student: He didn't put it into context. If he did, none of those things would have happened.

Student: His mother loved him but she had a lot of things on her mind.

Student: She didn't show it. She didn't pay any attention to him.

Student: I thought it was pretty good, really, because after the funeral she said he meant more to her than anybody.

Student: But in a way she didn't care about him. She took things out of context too.

Student: At first she didn't care. All she cared about were her bills.

Ms. H: What did he think of the relationship between Carpenter and the other guy on the bus?

Student: He thought they were enemies because of what they said to each other.

Student: He didn't put it into context.

Student: He didn't see the bigger picture.

Student: Both didn't put it in the big picture.

Ms. H: How many of you have ever had an experience where you took something out of context? Who wants to tell us?

Student: Me and my father working in the basement and he told me to get out, and I thought he meant out of the house, but he just meant out of the basement.

Student: Johnny and I were going bowling and I told my sister to pick us up at 4:30, but she came at 1:30.

Ms. H: That sounds more like a misunderstanding, or a lack of communication. It sounds like the program where the boys weren't clear. Okay, we're out of time. Isn't that a pity?

What links this discussion to the preceding one is that Ms. Hausman's questions fail to move from a discussion of the relationships of the characters in the story to an explicit discussion of the key idea behind the story--how context can clarify meanings. A brief conversation with Ms. Hausman immediately after this discussion revealed that she was quite aware of and frustrated by her failure. She explained her feelings this way:

> I am feeling frustrated because I end up spending most of the time talking about the story in the program and not the teaching point. Last week all the time was spent in figuring out the meaning of the program—the terrible secret. We never got to how questions can help you understand more. The same thing happened today. We spent all of our time talking of the relationships of the characters, but not the specific point—before you jump to conclusions you should look at the bigger picture, the context. Our discussions are more of a critique of the characters and the story.

These insightful remarks, however, were not accompanied by any proposals for change.

A second salient point that arises from the above discussion on context is the student's use and understanding of the terms "context" and "bigger picture." Their usage appears to be rote, and suggests a variation of the classic "classroom game" described by Bellack (1966). In this case, the students seemed to be following this rule: when the teacher introduces a new word, it is the student's responsibility to use it as often as possible, even if its meaning is not entirely clear. The students' inability to cite instances where they personally took something out of context seems to lend some support to this notion of the "classroom game."

Despite Ms. Hausman's early recognition of her failure to clearly focus on the key teaching point, the practice continued throughout the observation period.

During the discussion of Program 16, "What Do I Know?" there was more time given to the problem of lost dogs than to the two key questions relating to collecting information. Similarly, in the discussion after Program 45, "What's Important?" the idea of solving mysteries superseded the general notion of judging information in any situation. In

fact, Ms. Hausman's ending statements to both classes emphasized the mystery element:

> So the next time you read or watch a mystery, see if you can determine which clues are important and figure it out.

The following complete transcript of the discussion after Lesson 46, "What's Enough?" serves as a final illustration of the continuing problem:

Student: I hate when they end like that.

Ms. H: Well, what do you think?

Student: I thought from the beginning the lady took it because I always start to think it's one person, and all of a sudden you find out it's the other. So I picked the opposite one.

Ms. H: So you had a feeling at the very beginning.

Student: So did I.

Ms. H: Why did you?

Student: Because she said she didn't see anybody and he questioned her and she got mad.

Student: But wait a minute, she didn't have no letters when she came out of the store.

Student: She might've had 'em in her pocket.

Student: She didn't go to the mailbox.

Student: I know, she had to go back home to get some letters.

Ms. H: What do you think?

Student: It was the girl because she had dark brown hair and a navy blue T-shirt on.

Ms. H: That's the one they saw. The description fits her as the one they saw.

Student: They should've asked what color bike she was riding.

Ms. H: That's a good suggestion. They should have asked her what color bicycle she was riding. Maybe the kids would have noticed if it were yellow.

Student: I thought they said it was a yellow bicycle.

Ms. H: So there is a lot of information being passed, and I must agree with Randy. I don't like it when you don't know how the program came out. I like to know a good solid ending.

Student: That's why they call it ThinkAbout.

Ms. H: Okay, now the information I gave you at the beginning, as you know, had nothing to do with the program, but I wanted to point out again that there is going to be a lot of information given to you, and you are going to have to decide which information you need to make a right decision. You're going to have to judge it.

Student: He was really dumb, because if anyone told me he was going to steal my bike I would have stayed out there with it.

Ms. H: Yes, he should have locked his bike, and you all remember that--lock your bike.

According to the teacher's guide, this program is about how to decide when you have enough information to reach a conclusion. Students are to ask themselves, "Do I have enough information to satisfy my purpose? Is anything missing?" In the program itself, Bobby jumps to the conclusion that Eddie stole his bike, but he has no evidence. Lt. Davis explains to Bobby that there are at least three different kinds of evidence that would be sufficient for an arrest, and Bobby and his friend Larry pursue two of them systematically. When their investigation points more to a young girl than to Eddie, Bobby once again leaps to a conclusion, but Larry wants more information.

In the discussion afterward, one can see that Ms. Hausman did not focus on "evidence," "systematic investigation," or the concept of "enough." Instead, her students jumped to the conclusion that it was the young girl, and she did not stop them with questions or ask them to apply the three points given by Lt. Davis. At the end, she attempted

to bring the idea of judging information back to the introduction and to their own experience, but it was essentially a general footnote which received little attention.

In this instance and in all of the other discussions cited above, the major problem appears to be a lack of questioning and discussion skills on the part of Ms. Hausman. The students consistently wanted to talk about the story itself, and she seemed unable to pose the kinds of questions or fashion the kinds of responses that would focus and stimulate their thinking. After the program on context, for example, the following sequence of questions might have led directly to the concept of the "bigger picture":

> How did Danny feel about his mother at the beginning? How did he feel about her at the end? How do you account for the difference? How did Danny's mother act at the beginning of the program? How did she act at the end of the program? How do you explain the difference?

Or after viewing "What's Enough?" Ms. Hausman might have focussed on the idea of getting sufficient evidence for a conclusion with this series of questions:

> Is there enough evidence to call for the young girl's arrest? Did anyone see her take the bike? Did anybody see it in her possession? Did she try to sell a bicycle?

The absence of questioning skills also created difficulties in some of the introductory segments. Prior to the program "What Do I Know?" Ms. Hausman wanted to stress the necessity for collecting information. Toward that end, she asked this broad question: "What are some reasons for collecting information?" There was no student response, and a reasonable guess might be that the question was too unstructured for fifth grade students.

The fact that many of the ThinkAbout discussions appeared to "miss their mark" because of questioning problems should not, however, obscure the fact that there were also some discussions which were right "on target." One that stands out as highly effective occurred after Program 18, "What Should I Do?" The point of that program was to present various ways of gathering and recording information, and Ms. Hausman's discussion started and stayed on that point:

Ms. H: Okay, we've just seen some different ways of collecting information, and I know you are collecting information on plants in your classrooms. From your work upstairs or from this TV program, what is one way to collect information?

Student: We are testing things.

Ms. H: Okay, how are you doing that?

Student: One plant has everything, one has everything but light, one has everything but water, and one has everything but good soil.

Ms. H: Okay, what's another way to collect information?

Student: We are graphing.

Ms. H: Okay, so now we have two ways, testing and graphing. What's another way?

Student: Interviewing.

Ms. H: What was wrong with the interview on the program?

Student: She didn't plan. She didn't know how to go about it.

Ms. H: Can you think of any other ways to collect information?

Student: Ads in newspapers.

Student: Taking a survey.

Ms. H: Good. What did you think of the menu they finally came up with? Why don't you think about taking a survey in your classroom with the fourth graders? Where did the boy who was taking the survey go for help?

Student: He went to a teacher.

Ms. H: Well, if you are interested, I would be willing to help you make such a survey.

While the need for questioning and discussion skills loomed large in Ms. Hausman's "library classroom," there were also a few instances where it appeared that discussions of any kind were actually inappropriate. For example, after the program on classifying objects and the second memory tip, activities which provided an opportunity for practice seemed much more in order.

Activities. Although Ms. Hausman had relatively little control over students once they left the library and returned to their regular classroom, she still attempted to engage students in a few follow-up activities. The suggestion to make a survey of the lunchroom preferences of their classmates was one of two "voluntary" projects. The other suggestion, made after Program 20 on "Classifying Objects," was for students to make clever signs that would entice students to read library books (just as "Lip-Licking Licorice" enticed ice-cream buyers in the program). There were no student "volunteers" for either project.

There were, however, also "required" projects. Students were required to (1) write in a sentence or paragraph the meaning of the "terrible secret," (2) write a list of places to look for information, and (3) bring in on the last day of viewing a written "critique" of ThinkAbout. (Students who failed to bring in their critique were not allowed to watch the final program.)

Ms. Hausman also planned one in-class activity which stemmed from a discussion with the observer over the restlessness of students during the discussion "Classifying Objects." The observer suggested that activities which provided opportunities for practice might be preferable to

discussions in some cases. Ms. Hausman, who was very open to suggestions, responded the next week with a classification activity (see Table 2).

While the opportunity to practice the classification of objects initially made sense, the particular activity ultimately seemed diminished by the facts that so many of the items to be classified fit into more than one category, that the students' answers were never discussed, and that this activity was rather unrelated to the program viewed that day, which dealt with the organizing of information into an outline. In a real sense, then, this activity also seemed to "miss the mark."

Connecting ThinkAbout Programs to Each Other and to the Rest of the Curriculum

Because she strongly believed that ThinkAbout needed to be reinforced and followed up in the students' regular classroom, Ms. Hausman was disappointed by the fifth grade teachers' lack of interest and involvement in the series. At one point, she expressed her feelings this way:

> I just wish they would come down with the children sometimes and watch some of these programs, or at least ask me about what we have been doing. There are so many ways they could reinforce these ideas upstairs. After the Challenge program, I offered to work with them on a time-capsule project, but I haven't had a response yet.

Since there never was a response to ThinkAbout from either of the two fifth grade teachers, Ms. Hausman seemed to make a concerted effort to reinforce and link program ideas wherever she could. One approach was to continually link programs to each other and to the overall cluster theme. For example, before the first program on classifying, she made this announcement:

> This morning and for the next two lessons we are going to be talking about classifying. Today we will be talking about classifying objects, next time we

Table 2

Classification Activity

CLASSIFY PLEASE!

	Fiction	Non-Fiction	Biography
fun			
adventure			
games			
sports			
heroes			
intrigue			
love			
spies			
ghosts			
laughs			
crafts			
hobbies			
music			
Indians			
him			
her			
poems			
real people			
snakes			
rockets			
folk tales			
tears			
Presidents			

> will be talking about classifying information, and finally we will be talking about classifying people, which is sometimes called stereotyping.

And before the next program she made the connection once again this way:

> Last week, you remember, we were talking about classifying objects. Today we will be seeing a program about Leah, who has to classify information in order to write a report.

These kinds of connections were commonplace throughout the observation period and seemed to reinforce the ideas behind the programs.

A second approach was to link program ideas to the students' school environment. The idea of collecting information was connected to the students' classroom science project with plants, the second memory tip was linked to upcoming oral reports, the process of outlining was connected to future written reports at Baker, and the classification of objects was connected to the classification system in the school library. These linkages seemed to provide a practical purpose for viewing and made explicit the relationship between ThinkAbout and the personal world of the student.

Summary Statement

Ms. Hausman took ThinkAbout seriously. She previewed every program, developed many of her own introductions and follow-up questions and activities, and reflected upon her own teaching performance. While she experienced difficulties in conducting focussed discussions and creating appropriate activities, she was quite successful in linking individual programs to each other and to the school environment more generally. The overall impression is that she was of assistance to students in their processing of ThinkAbout programs. In the words of one of the students, "Ms. Hausman was very helpful in explaining things to us."

Instructional Impact: Three Perspectives

Although Ms. Hausman put considerable effort into "explaining" programs and relating them to other aspects of the students' academic lives, the fact remains that ThinkAbout was physically divorced from the regular fifth grade classrooms. All teacher input and almost all student responsibility was confined to a 30-minute (or shorter) library period on Fridays. In search of insight into student perceptions of their weekly ThinkAbout experiences and the meanings they derived from them, the students' written critiques were analyzed, and interviews were conducted with 18 students, Ms. Hausman, and the two fifth grade teachers at King.

The Student Perspective

Every one of Ms. Hausman's students "liked" or "enjoyed" ThinkAbout, and most talked in terms of "neat," "good," "very good," "great," or "wonderful." Several expressed interest in seeing more programs, either during the summer or "next year at Baker," but a few also made negative comments. The negatives were expressed this way:

> Most of the endings are bad.
>
> It was dumb at times. Things that were hard to them were obvious to us.
>
> It was sort of dumb. The actors acted weird. It would be nice if the kids would act like kids. They were sort of stupid sometimes. It was boring sometimes.

The student who spoke of the "obvious" things also suggested that some of the problem-solving processes were unrealistic. In his words:

> I think some of the things take too long--when that girl went to write about the hotel on the back of the menu and she had to write down and cut out all the stuff in the paper and write down all of those things on cards. I think there might have been an easier way to do that.

All the students, however, claimed to learn something from ThinkAbout,

and for most, the appeal of the series was that the learning process was enjoyable. The following are typical expressions of this sentiment:

> It was a fun way to learn. There was always something adventurous.
>
> ThinkAbout was educational and fun to watch.
>
> It is a teacher in a TV set.
>
> It's fun to think about what you see. It's something to think about. Also, it's fun to learn about.

For a few, ThinkAbout was simply preferable to "work":

> It really does beat work.
>
> It also gets us out of the room so we don't have to do so much work.

And for a few others it seemed to be rather relaxing:

> It was nice after a hard week of work.
>
> It made me feel like I was in my own home, watching TV.

Some students, in their written critiques, identified one or two favorite programs, and of those, three mentioned "the mystery of how Sir Gordon died" (Program 45, "What's Important?") and two listed "the one about the missing bike" (Program 46, "What's Enough?") and "the one about the Martians" (Program 44, "Should I Believe It?"). Others mentioned once were "the one about the UFO" (Program 17, "Where Should I Go?"), "the one about the fat paper boy" (Program 4, "You Can Remember"), "the one with the two girls in the attack" (Program 12, "But What Does it Mean?"), and "the one about the boy in the apartment" (Program 47, "Point of View"). A few students were more general. One cited "the mysteries," and the other "judging information."

In the interview process, Programs 44, 45, and 46 were again the heavy favorites, but these others were also mentioned: "the one about

the missing dog" (Program 14, "What Do I Know?") and "the one about the fire" (Program 21, "Classifying Information"). With the exception of the student who spoke of "judging information," all favorites were described in terms of the narrative as opposed to the concept or the title.

When students expressed what they learned from the series some were quite general:

> You learn skills from it.
>
> It tells us many new words.
>
> It tells you what to do and how to do it.
>
> Like in each one they will have a main point, and the main point usually helps you.

One spoke explicitly of the thinking process:

> They taught us about thinking yourself.

Two others spoke in terms of problem solving:

> It taught us kids how to deal with problem solving.
>
> It shows you how to cope with your problems.

Some, however, specified ideas that could be linked to particular programs and clusters. Their comments were as follows:

> I learned "picture it," judging information, what I know and what I need to know.
>
> I learned how to approximate, how to take interviews, and how to find clues.
>
> I learned how you measure things and I learned how to get information.
>
> I learned how to ask "What do I know?" and "What do I need to know?" I learned about classifying and now I know what stereotyping is.
>
> I learned that you don't really know what somebody is talking about unless you hear the whole thing--what they are saying.

In an attempt to determine whether students were comprehending the

key points behind individual programs, each of those interviewed was asked to explain the main idea of his/her favorite program. If he/she did not have a favorite, the interviewer supplied one. Of the 23 responses (several people spoke of more than one program), 12 seemed to display some insight, six were incorrect, and five "I don't know"s. The following represent the responses that were judged to be either partially or totally correct:

> Program 45: "What's Important?"
> The main idea: "How to find the right clues and find which ones are important."
>
> Program 44: "Should I Believe It?"
> The main idea: "Well, you shouldn't jump to conclusions unless you are there."
>
> Program 46: "What's Enough?"
> The main idea: I think it was meaning if you know something you can't blame it on that person unless you have all the right information."
>
> Program 17: "Where Should I Go?"
> The main idea: "They were collecting information to prove they saw the spaceship. That's all I think it was teaching--collecting information and putting it together."
>
> Program 47: "Point of View"
> The main idea: "That people have different views of what they care about."

The following are typical of the incorrect responses and reveal two patterns, the inability to go beyond the details of the story and the inclination to guess:

> Program 46: "What's Enough?"
> The main idea: "Not to leave your bike out--to chain it up."
>
> Program 16: "What Do I Know?"
> The main idea: "I guess it is to keep your dog locked up."
>
> Program 45: "What's Important?"
> The main idea: "Collecting information?"

The final interview question aimed at application and asked students to name instances in which they might use ideas from ThinkAbout at school or at home. Of the seven students who responded, four mentioned the idea of "brainstorming." One saw brainstorming as helpful for composition writing in the classroom:

> The one on brainstorming I use a lot when you have to write all those compositions and stories. Like if you have to do a composition and would just think of all those things.

Another saw brainstorming as being helpful at home:

> Like I could use brainstorming sometimes. Me and my brother, we try to decide what we should do. Like we fight a lot and we want to know what we should do about it, because my mother said we should do something about it.

And two others explained that brainstorming had already been helpful in their regular classroom. One put it this way:

> We had some problems like talking and stuff. We brainstormed. And one time, counselor came in and we brainstormed.

In addition to brainstorming, three other possibilities were mentioned. One student saw ThinkAbout as helpful in terms of lost items:

> Since I might lose things in the classroom, I can think of which clues are the right ones.

Another picked up the idea of "planning":

> Like if you were going to make a house, like a doghouse or something, and you got everything you needed supposedly and then you had to stop and think, like you could stop and make a list so you wouldn't have to think about it, and you could list all the things so you wouldn't forget the nails or something.

And finally, for one student, ThinkAbout may be useful in terms of his self-protection:

> If someone was going to fight you for nothing, you could tell him to think about why they are going to fight you.

In both the interviews and the student critiques, the most striking aspect of the comments was the number of students who seemed to be correctly using ThinkAbout terminology and concepts. The following phrases permeated their remarks: "collecting information," "judging information," "getting the right information," "the whole idea," "junping to conclusions," "good information."

The Perspective of the Regular Teachers

The two fifth grade teachers at King Elementary, Katherine Greenman and Betty Jordan, "never considered" using ThinkAbout in their classroom because they have "so much to do in just covering their textbooks." Although these two teachers have teamed for a number of years, there have been special difficulties for them this year with their fourth and fifth grade combination. Ms. Greenman explained the situation this way:

> In the past, we've always done multi-aged grouping for social studies and for language. This year, we're on grade level objectives, and each group is required to be in a certain textbook. So we have had virtually no mixed groups this year. I taught fourth grade social studies while Betty taught fifth grade social studies. Betty taught fourth grade language while I taught fifth grade language. Teaching like this just takes all of your time, and there is nothing left over for anything else.

Ms. Jordan saw additional complications in terms of using ThinkAbout:

> What would we do with our fourth grade students? That has been one of our main difficulties all year. When we go to the science museum, we have to hire a substitute.

While ThinkAbout did not seem feasible in terms of their schedule, they were pleased that Ms. Hausman could work it into hers. Ms. Greenman gave this reason:

> They used to hate to go to the library. I mean, it was absolute torture. Now they look forward to going. We haven't heard a grumble. They'll even remind us

> it's time for ThinkAbout, and so to me this is as good a sign as anything else.

Ms. Jordan agreed:

> Yes, and on those few Fridays when Ms. Hausman has been absent, the kids have voiced real disappointment. It's not clapping and going "hurray"--it's moaning and groaning . . . and when they had to have that critique in order to see the last program, they were all very concerned about getting it done.

Neither Ms. Greenman or Ms. Jordan have noticed any references by the children to ThinkAbout in their regular classroom activities, and both of them believe that it would be nearly impossible to judge if any of the children's skills were directly related to ThinkAbout. Ms. Greenman expressed their beliefs in these terms:

> I think that in any kind of program, especially the way we teach, between all the different skills you get in reading and everything else, it's very hard to isolate what one program is doing. They have pretty good skills, but we could not isolate them and say their growth has been due to ThinkAbout. We put a tremendous amount on skills, stressing writing skills and how to get your ideas down on paper, so we can't say yes, ThinkAbout has really helped.

The Perspective of Ms. Hausman

While the two fifth grade teachers liked ThinkAbout because their students liked it, Ms. Hausman is enthusiastic about the series because of its quality:

> I would rate it tops. And I've looked at and used maybe five or six other series. And whether that's a valid comparison, I don't know, but I think that it is. As far as the program is concerned, I think that it is excellent--the quality of the programs, the characters in them. They do vary with each situation, and we talked about that, about how some of them might not be pertinent to our situation here. And so we can pick and choose. I think that the program is really excellent, tops, as far as I am concerned.

Ms. Hausman also found the second teacher's guide to be "excellent," and although she originally misunderstood the cluster organization and the purpose of the Challenge programs, she put the blame on herself:

> If I had read the introduction to the guide, I think I would have understood those clusters. I'm not sure I would have realized what the Challenges were. I thought that they were the follow-up to the cluster, and of course, they aren't.

While she has no specific evidence as to instructional impact, she firmly believes that students have benefitted from the series, and she "knows" the students liked them. As she explained it:

> Every week there are always kids coming into the library who want to talk about ThinkAbout.

Given student interest and her own high opinion of the series, Ms. Hausman plans to use ThinkAbout next year, but she has developed several ideas as to how she might improve the quality of the experience and the likelihood of impact.

The first involves her own time commitment:

> I had some difficulties with discussions and finding good follow-up activities, and I think it was because I wasn't able to devote the time to it. I will do more next year, and the fact that I've seen half of them already should help.

A second idea involves the physical set up:

> Next year I might consider trying to watch this around tables, right in this area of the library where we have tables and chairs. Sitting on a rug around a television set is not, in my estimation, a wonderful way for fifth graders to watch ThinkAbout. It was constant, "Sit up. Don't lie down." They relaxed, but I don't want them to relax. I don't want them to turn their minds off I want them to think about ThinkAbout. And so perhaps next year we'll have the setting in this area, where they're sitting at the tables, and I may suggest that they take notes, bring paper and pencils each time so that I can have them do the follow-up exercise right here or before exercise. That might be a better situation for me and them.

A third idea relates to the viewing process itself:

> These programs are just 15 minutes. If we take the whole 30 minutes, it's possible that I can go back to a certain part of the program and go through it again. Now that I've seen half of these anyway, I can focus in on something specific. For example, that program that they seemed to like the best, the bike-stealing incident. There were some part that that would be worth going back to. Did they have enough evidence to point to whoever may have taken the bike? It helped me to watch that program two or three times. And it may help them to see certain parts of it again.

Fourth and finally, Ms. Hausman plans to talk with Ms. Greenman and Ms. Jordan in order to see if they can achieve some degree of integration:

> If I can find out the kinds of skills and projects they are going to be working on, I can select the programs which would reinforce what they are doing. Working together, we should really be able to achieve something.

SUMMARY AND CONCLUSIONS TO CASE 3

What happened with ThinkAbout in Ms. Hausman's "library classroom"? The children were engaged in a weekly viewing experience outside the classroom, in much the same way that they are exposed to art, music, and gym. During the 30-minute time block, they were consistently prepared for viewing and they were invariably given opportunities to react afterward. Many of the discussions and some of the introductions, however, seemed to "miss the mark" in terms of the key ideas. While the fifth grade teachers made no attempt to connect ThinkAbout to classroom activicies, Ms. Hausman worked toward drawing relationships among individual programs and between the series and the rest of the students' world of schooling. There were few follow-up activities and no opportunities to practice ThinkAbout skills.

All the students labeled the experience as "enjoyable and educational." As interviewed students spoke of what they learned, many could remember the details of their favorites, and about half could pinpoint the key idea behind a particular episode. Although there were instances throughout the observation period wherein students seemed to be using ThinkAbout terminology in rote fashion, some students, at the end, could use ThinkAbout concepts like "the whole idea" and "good information" correctly. The fifth grade teachers, however, reported that students never made any reference to ThinkAbout in their regular classroom activities.

At least two broad forces seem to have played a major role in shaping these particular processes and outcomes. One has been the impact of the district's back-to-basics mandate on King Elementary School. The fifth grade teachers have come to believe that the basics can only be taught through a textbook approach, and the principal has tried to salvage the

use of instructional television by putting it in the library. On the one hand, these responses have separated ThinkAbout from the regular classroom setting; on the other hand, they have enabled students to watch it. (No other elementary school in Lyon Heights has used it with any regularity.)

A second major force was the library aide's underestimation of the teaching task and her inability to handle parts of it. A lack of time and concentration contributed to the failure to identify key points, and a lack of questioning skills contributed to her failure to focus on them.

CONCLUSIONS AND IMPLICATIONS:

LOOKING ACROSS AND BEYOND THE THREE CASES

Teacher Use

After nine months of classroom participation and observation and two months of reflection, three conclusions regarding teacher use of ThinkAbout emerge. The first is that a teacher's approach to ThinkAbout may be described in terms of the following dimensions: (1) number and sequence of programs viewed, (2) amount of teacher preparation, (3) number, nature, and quality of introductory and follow-up activities, (4) degree of connection and integration with the student's life, in class and out, and (5) the degree to which the overall classroom environment supports ThinkAbout goals.

Considering the three teachers in terms of these dimensions, conclusion two is that there was enormous diversity regarding use of ThinkAbout. In Ms. Church's classroom, almost 60 programs were viewed, but there was no advanced preparation on her part. Introductions and follow-up activities were brief and lifted directly from the manual. Discussions generally "missed the mark," and there were no provisions for practice of skills. ThinkAbout was divorced from the rest of the fifth grade curriculum, and oftentimes the entire classroom environment seemed in direct conflict with ThinkAbout goals.

In the case of Mr. Cartwright, 13 programs were viewed in a sequence that was related to an ongoing social studies unit and particular student needs. Extraordinary amounts of teacher time were given to planning original and lengthy introductions, brief in-class follow-ups, and extended opportunities for skill development. ThinkAbout was thoroughly

integrated with the rest of the curriculum, and the classroom setting strongly supported ThinkAbout aims.

In Ms. Hausman's classroom, students saw approximately 30 programs, with the last eight being teacher-selected. Teacher preparation included the previewing of cassettes and the planning of some introductory and follow-up activities. Discussions were unplanned and often "missed the mark." There were no opportunities for practice of skills, and ThinkAbout was physically separated from the fifth grade classroom.

If one adds to these three widely varying approaches the observed teachers who watched one or two ThinkAbout programs a day without any pre- or post-remarks, the diversity in regard to use is still greater.

The attempt to account for such diversity leads to yet another conclusion--teacher use may be determined by some combination of the following factors: (1) societal, community, and school curricular demands, (2) personal interest and job satisfaction, (3) insight into the nature of the ThinkAbout teaching task, (4) teaching skills.

Outside curricular pressures--perceived or real--affected Ms. Church and the school organization of King in relation to ThinkAbout, while Mr. Carter felt considerable curricular freedom. Family concerns affected the amount of time Ms. Hausman was interested in giving, while teacher militancy and outside interests seemed to affect Ms. Church's willingness to put effort into planning. Both Ms. Church and Ms. Hausman underestimated the time and concentration necessary to identify the key points and disregarded the relationship between skill development and opportunities for practice. When key points were recognized, both Ms. Hausman and Ms. Church lacked the teaching skills to bring them sharply into focus. The skills most lacking and most crucial were clearly those related to

teacher questioning. The phenomenon of "missing the mark" was pervasive and seemed to pose the greatest impediment to students' understanding. The lack of specificity of the teacher's guide seemed to contribute to this problem.

Gross, Giacquinta, and Bernstein (1971) identified five barriers to the implementation of educational innovations in their study of the catalytic role model in the Cambire school: (1) the teacher's lack of clarity about the innovation, (2) the teacher's lack of skills and knowledge to carry out the innovation, (3) the unavailability of required instructional materials, (4) the incompatibility of organizational arrangements, and (5) a lack of teacher motivation.

While the innovation of the catalytic role model is of a different order than the video series under study, the barriers to implementation seem remarkably similar to the factors that seemed to affect teacher use of ThinkAbout. The issue of insight into the teaching task seems highly related to a "lack of clarity as to what was expected," and the lack of skills to carry out the innovation is of course identical. Teacher complaints as to the lack of specificity in the teacher's guide to ThinkAbout may in fact be another way of saying that the necessary instructional materials were unavailable. The concept of "incompatible organizational arrangements" seems closely related to the idea of district and school pressures. The organizational response to such pressures in King Elementary School, in Roberts Elementary School, and in the classroom setting of Ms. Church clearly affected the way in which ThinkAbout was used. While the lack of teacher motivation doesn't seem to be as broad as the idea of personal interest and job satisfaction, it seems to be a significant part of it. Because of their personal feelings about their jobs,

both Ms. Hausman and Ms. Church lacked the motivation to expend the time and effort required to fully follow up the series. In addition, Ms. Hausman was discouraged, over time, by the organizational constraints at King. The closeness of these findings suggests then that Gross et al.'s "barriers" to implementation may also be the same factors that affect the way in which an innovation is used.

Student Response

The attempt to assess the meanings and skills students were taking from ThinkAbout was in each case the most difficult research task. Student behavior directly attributable to ThinkAbout was difficult to find, and student comments in class and in interviews were difficult to evaluate. Nevertheless, the following conclusions regarding student response seem worthy of consideration:

1. Fifth and sixth grade students of all abilities and backgrounds found ThinkAbout equally absorbing. The fifth graders, however, seemed to especially relate to mysteries, while the sixth graders seemed to especially relate to romantic episodes.

2. In all three settings, the student's general ability seemed to affect his capacity to process the programs. The brightest in each classroom were usually the ones who could go beyond the story to the main idea.

3. In all settings, the tendency was for students to become engrossed in the story line at the expense of the concept behind it.

4. All students seemed to need direct teaching assistance either to see beyond the story or to generalize from it.

5. The students who saw the most programs (60) and had the least amount of teacher assistance remembered less than the students who saw the least (13) and had the most assistance. Thus the number of programs viewed and the amount of assistance seemed to affect retention and understanding.

6. Students who were exposed to connections among programs and to the notion of "cluster" themes seemed to use ThinkAbout terms and concepts (e.g., "the whole idea," "good information") more than others.

7. Evidence of classroom application occurred only in the case where there were few programs watched and extensive teacher assistance, and the evidence related to the use of memory techniques.

Implications

The evidence relating to the variation in teacher use, the nature of the factors influencing it, and the assistance required for students to see the key idea, generalize from it, and develop skills seems to point directly toward the central and pivotal role of the teacher. Producing a video series that is conceptually strong and engrossing and that appeals equally to teachers and students is clearly quite an accomplishment. In terms of instructional impact, however, it seems to be only a necessary first step. The narrative, the special effects, and the relevancy of the situations which serve to capture student interest can lead both students and teachers away from the key teaching point. Direct assistance to teachers, in the form of training and better support materials, and educational efforts with administrators in terms of the possibilities of ThinkAbout vis-á-vis basic skill development seem to be the logical next steps.

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